CORRECTION TO 4(f)/6(f) EVALUATION OF THE FRESNO TO BAKERSFIELD HIGH-SPEED TRAIN REVISED DRAFT ENVIRONMENTAL IMPACT REPORT (EIR)/SUPPLEMENTAL DRAFT ENVIRONMENTAL IMPACT STATEMENT (EIS)

JULY 26, 2012

In the course of environmental studies for the Fresno to Bakersfield High-Speed Train (HST) Section, the residence at 2509 E. California Avenue in Bakersfield was identified as being eligible for the National Register of Historic Places (NRHP). This small wood-frame Folk Victorian residence was constructed in about 1898 and displays some Queen Anne stylistic details including its dormer gable with articulated molding and cornice, spindlework frieze, and a cutaway bay with wide window surrounds. The building is eligible for listing in the NRHP under Criterion C as an important local example of Folk Victorian architecture.

In the preliminary 4(f)/6(f) evaluation, the residence at 2509 E. California Avenue was inadvertently reported to be within the "footprint" of disturbance for the BNSF Alternative through Bakersfield. In fact, the residence at this address is located approximately 400 feet south of the BNSF Alternative, within the footprint of disturbance of the Bakersfield South Alternative. Because of the importance of the Section 4(f) determination, the preliminary 4(f)/6(f) evaluation contained in Chapter 4.0 of the Revised Draft EIR/Supplemental Draft EIS has been corrected to indicate that the residence at 2509 E. California Avenue in Bakersfield would be impacted by the Bakersfield South Alternative.

The copies of the Revised Draft EIR/Supplemental Draft EIS available at public locations in the project area are being updated to include the corrected Chapter 4.0. The corrected version of Chapter 4.0 is also available for download from the Authority's website at www.cahighspeedrail.ca.gov/revised-draft-eir-f-b.aspx and the Federal Railroad Administration's website at http://www.fra.dot.gov/rpd/freight/fp_CA_FB_Revised_DEIR_Supplemental_DEIS.shtml.

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4.0 Section 4(f)/6(f) Evaluation

4.1 Introduction

This chapter provides the analysis to support preliminary determinations to comply with the provisions of 49 United States Code (U.S.C.) 303 (hereinafter referred to as "Section 4[f]") and the Land and Water Conservation Fund (LWCF) Act of 1965 (hereinafter referred to as "Section 6[f]").

Under Section 4(f) an operating agency of the U.S. Department of Transportation may not approve a project that uses protected properties unless there are no prudent or feasible alternatives to such use, and the project includes all possible planning to minimize harm to such properties. Section 4(f) properties are publicly owned lands of a park, recreation area, or wildlife and water fowl refuge, or land of a historical site of national, state, or local significance as determined by the federal, state, regional, or local officials having jurisdiction over the resource. This chapter includes the following:

- Describes the statutory requirements associated with Section 4(f).
- Identifies the properties protected by Section 4(f) in the study area.
- Preliminarily determines whether the Fresno to Bakersfield High-Speed Train Project would result in the use of those properties.
- Identifies feasible and prudent alternatives, to the extent any exist, that would avoid or minimize use of the properties.
- Identifies measures to minimize harm.
- Provides a preliminary least-harm analysis for project alternatives that would result in the use of Section 4(f) properties.

Section 6(f) properties are recreation resources created or improved with funds from the LWCF Act. Land purchased with these funds cannot be converted to a nonrecreational use without coordination with the Department of the Interior, National Park Service (NPS) and mitigation that includes replacement of the quality and quantity of land used. Additional information on publicly owned parks, recreation lands, wildlife and waterfowl refuges, and historic sites is provided in Section 3.7, Biological Resources and Wetlands; Section 3.15, Parks, Recreation, and Open Space; Section 3.17, Cultural and Paleontological Resources; the *California High-Speed Train Fresno to Bakersfield Section: Supplemental Historic Property Survey Report* (Authority and FRA 2011a); and the *California High-Speed Train Fresno to Bakersfield Section: Revised Supplemental Historic Property Survey Report* (Authority and FRA 2012, in preparation). This chapter describes the statutory requirements associated with Section 6(f), the methodology for identifying Section 6(f) properties, and makes a preliminary assessment of impacts on resources protected under Section 6(f).

U.S. Department of Transportation Act 49 U.S.C. 303(c) (Section 4[f])

Projects undertaken by an operating administration of the U.S. Department of Transportation or that may receive federal funding and/or discretionary approvals from such an operating administration must demonstrate compliance with Section 4(f). Section 4(f) protects publicly owned land of parks, recreational areas, and wildlife refuges. Section 4(f) also protects historic sites of national, state, or local significance located on public or private land. FRA's Procedures for Considering Environmental Impacts (64 FR 25445, May 26, 1999) contains FRA processes and

protocols for analyzing the potential use of Section 4(f) resources. In addition, although not subject to the Title 23 Section 774 regulations regarding Section 4(f) for highways and transit projects, the FRA uses these regulations as additional guidance when applying the requirements established in Section 4(f).

FRA may not approve the use of a Section 4(f) property, as described in 49 U.S.C. 303(c), unless it determines that there is no feasible and prudent alternative to avoid the use of the property and the action includes all possible planning to minimize harm resulting from such use, or the project has a *de minimis* impact consistent with the requirements of 49 U.S.C. 303(d). An alternative is not feasible if it cannot be built as a matter of sound engineering judgment. In determining whether an alternative is not prudent, the FRA may consider if the alternative will result in any of the following:

- Compromise the project to a degree that is unreasonable for proceeding with the project in light of its stated purpose and need.
- Unacceptable safety or operational problems.
- After reasonable mitigation the project results in severe social, economic, or environmental impacts; severe disruption to established communities; severe disproportionate impacts on minority or low-income populations; or severe impacts on environmental resources protected under other federal statutes.
- Additional construction, maintenance, or operational costs of an extraordinary magnitude.
- Other unique problems or unusual factors.
- Multiple factors that, while individually minor, cumulatively cause unique problems or impacts of extraordinary magnitude.

If FRA determines there is both the use of a Section 4(f) property and that there is no prudent and feasible alternative to the use of a Section 4(f) resource, FRA must ensure the project include all possible planning to minimize harm to the property, which includes all reasonable measures to minimize harm or mitigate impacts (49 U.S.C. 303(c)(2)).

After making a Section 4(f) determination and identifying the reasonable measures to minimize harm, if there is more than one alternative that results in the use of a Section 4(f) property, FRA must also compare the alternatives to determine which alternative has the potential to cause the least overall harm. The least overall harm may be determined by balancing the following factors:

- The ability to mitigate adverse impacts on each Section 4(f) property (including any measures that result in benefits to the property).
- The relative severity of the remaining harm—after mitigation—to the protected activities, attributes, or features that qualify each Section 4(f) property for protection.
- The relative significance of each Section 4(f) property.
- The views of the official(s) with jurisdiction over each Section 4(f) property.
- The degree to which each alternative meets the purpose and need for the project.
- After reasonable mitigation, the magnitude of any adverse impacts on resources not protected by Section 4(f).
- Substantial differences in costs among the alternatives.

4.1.1 Study Area

The study area as defined below identifies the Section 4(f) and Section 6(f) properties considered for evaluation. Figure 4-1 depicts the alternative alignments and the heavy maintenance facility (HMF) site alternatives for the Fresno to Bakersfield Section of the HST System.

4.1.1.1 Public Park and Recreation Lands, Open Space, and Wildlife and Waterfowl Refuges

The study area for parks, recreational facilities, and open space is defined as 1,000 feet on either side of the alternative alignments and 0.5 mile around the HMF sites, station areas, and support facilities for the HST alternatives, with one exception—existing transportation corridors. In those areas where these resources are separated from the project element by an existing transportation corridor, such as SR 43 or the BNSF right-of-way, the 1,000-foot study area does not extend beyond these transportation rights-of-way because they provide a barrier to potential impacts on park and recreation resources.

4.1.1.2 Historic properties

Because this project is a federal undertaking, Title 36 Code of Federal Regulations (CFR) 800.4(a)(1) requires the establishment of an Area of Potential Effects (APE). The APE is the geographic area or areas within which an undertaking may directly or indirectly alter the character or use of historic properties, if any such properties exist.

The APE for historic architectural properties includes all properties that contain buildings, structures, objects, sites, landscapes, and districts more than 50 years of age at the time the cultural resources survey was conducted. The APE is further defined in Section 3.17, Cultural and Paleontological Resources and includes:

- Properties within the proposed right-of-way.
- Properties where historic materials or associated landscape features would be demolished, moved, or altered by construction.
- Properties near the undertaking where railroad materials, features, and activities have not been part of their historic setting and where the introduction of visual or audible elements may affect the use or characteristics of those properties that would be the basis for their eligibility for listing in the National Register.
- Properties near the undertaking that were either used by a railroad or served by a railroad, or where railroad materials, features, and activities have long been part of their historic setting, but only in such cases where the undertaking would result in a substantial change from the historic use, access, or noise and vibration levels that were present 50 years ago or during the period of significance of a property, if different.

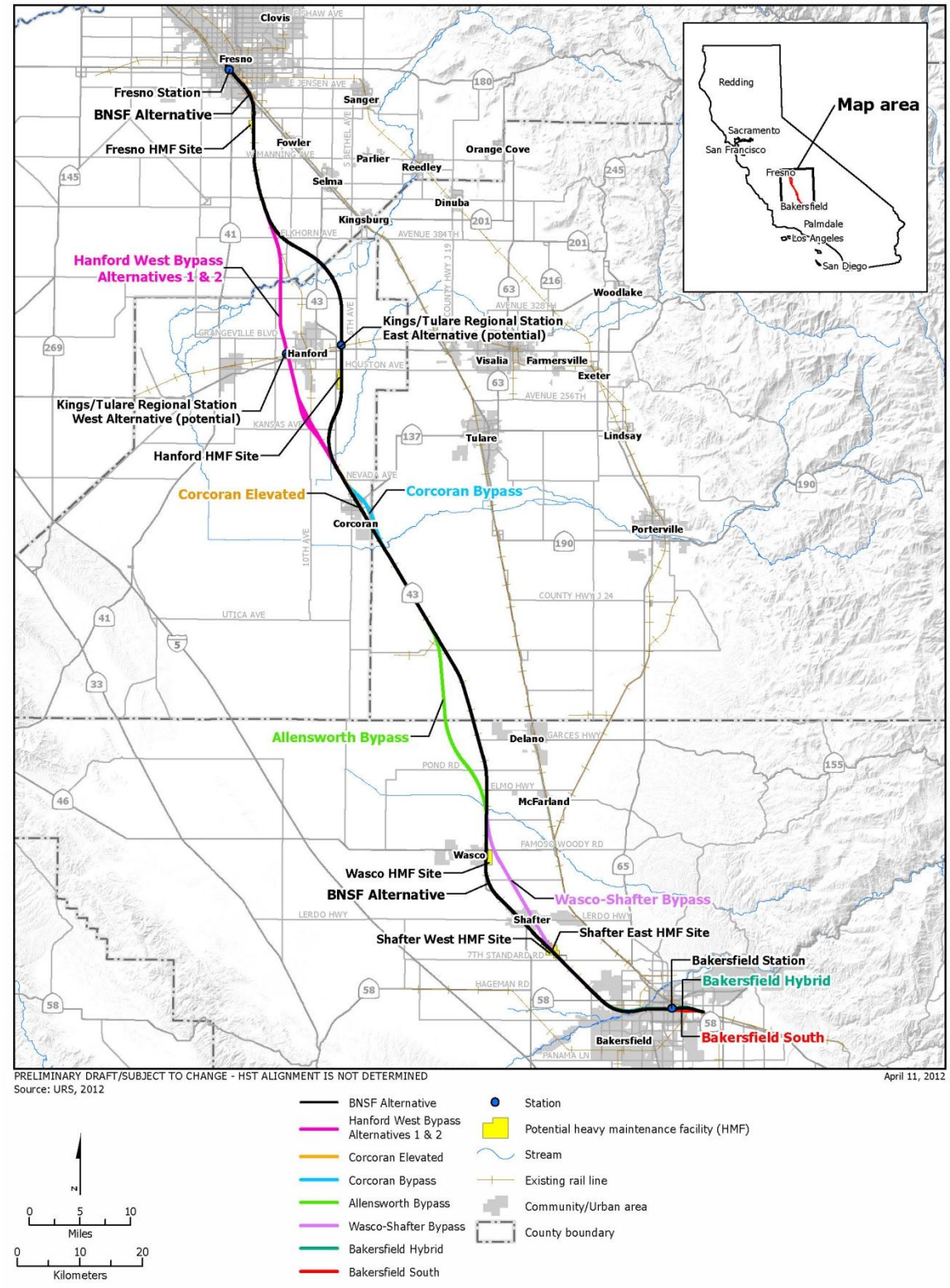

Figure 4-1
HST alternatives and HMF sites carried forward for further study

4.1.2 Section 4(f) Use Definition

4.1.2.1 Permanent Use

A permanent use of a Section 4(f) resource occurs when property is permanently incorporated into a proposed transportation facility. This might occur as a result of partial or full acquisition, permanent easements, or temporary easements that exceed limits for temporary occupancy as noted below.

4.1.2.2 Temporary Occupancy

A temporary occupancy of a Section 4(f) resource occurs when there is a temporary occupancy of property that is considered adverse in terms of the preservationist purposes of the Section 4(f) statute. A temporary occupancy of property does not constitute a use of a Section 4(f) resource when the following conditions are satisfied:

- The occupancy must be of temporary duration (e.g., shorter than the period of construction) and must not involve a change in ownership of the property.
- The scope of work must be minor, with only minimal changes to the protected resource.
- There must be no permanent adverse physical impacts on the protected resource or temporary or permanent interference with activities or purpose of the resource.
- The property being used must be fully restored to a condition that is at least as good as existed before project construction.
- There must be documented agreement of the appropriate officials having jurisdiction over the resource regarding the foregoing requirements.

4.1.2.3 Constructive Use

A constructive use of a Section 4(f) resource occurs when a transportation project does not permanently incorporate the property of a protected resource, but the proximity of the project results in impacts (e.g., noise, vibration, visual, access, ecological) that are so severe that the protected activities, features, or attributes that qualify the resource for protection under Section 4(f) are substantially impaired. Substantial impairment occurs only if the protected activities, features, or attributes of the resource are substantially diminished. This determination is made after taking the following steps:

- Identifying the current activities, features, or attributes of the resource that may be sensitive to proximity impacts.
- Analyzing the potential proximity impacts on the resource.
- Consulting with the appropriate officials having jurisdiction over the resource.

It is important to note that erecting a structure over a Section 4(f) property, and thus requiring an air lease, does not, by itself, constitute a use, unless the effect constitutes a constructive use. Further, an indirect adverse effect under Section 106 of the National Historic Preservation Act to a historic property does not in and of itself result in a constructive use.

4.1.2.4 De Minimis Impact

According to 49 U.S.C. 303(d), the following criteria must be met to reach a *de minimis* impact determination:

- For parks, recreation areas, and wildlife and waterfowl refuges, a *de minimis* impact determination may be made if a transportation project will not adversely affect the activities, features, and attributes qualifying the property for protection under Section 4(f) after mitigation. In addition, to make a de minimis impact determination there must be:
  - Public notice and opportunity for public review and comment.
  - Written concurrence received from the officials with jurisdiction over the property.
- For a historic site, a *de minimis* impact determination may be made only if, in accordance with the Section 106 process of the National Historic Preservation Act (NHPA), it is found that the transportation program or project will have no effect or no adverse effect on historic properties, FRA has received written concurrence from the State Historic Preservation Officer (SHPO), and has taken into account the views of consulting parties to the Section 106 process.

4.1.3 Section 4(f) Applicability

A park or recreation area qualifies for protection under Section 4(f) if it (1) is publicly owned at the time at which the "use" occurs, (2) is open to the general public, (3) is being used for recreation, and (4) is considered significant by the authority with jurisdiction.

A wildlife or waterfowl refuge qualifies for protection under Section 4(f) if it (1) is publicly owned at the time at which the "use" occurs, (2) is being used as a refuge, and (3) is considered significant by the authority with jurisdiction.

A historic site eligible for, or listed in, the National Register of Historic Places (NRHP) may qualify for protection under Section 4(f) and as such FRA must determine whether the site or portion thereof would be permanently or temporarily incorporated into the project. Even if a project does not permanently or temporarily incorporate a historic property but still causes an adverse effect, the proximity impacts must be evaluated to determine if those impacts would substantially impair the features or attributes that contribute to the NRHP eligibility of the historic site. While the statutory requirements of Section 106 and Section 4(f) are similar, if a proposed action results in an "adverse effect" under Section 106, there will not automatically be a Section 4(f) "use" absent a separate analysis and determination by the FRA.

In order for a cultural resource to be protected by Section 4(f), it must be in, or eligible for listing in, the NRHP. The U.S. Department of the Interior, NPS provides guidance in applying criteria for evaluation of cultural resources to assist in making a determination of NRHP-eligibility (NPS 2002):

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and meet one or more of the following criteria:

> Criterion A: properties that are associated with events that have made a significant contribution to the broad patterns of our history; or
>
> Criterion B: properties that are associated with the lives of persons significant in our past; or
>
> Criterion C: properties that embody distinctive characteristics of a type, period, or method of construction; or that represent the work of a master; or that possess high-artistic values; or that represent a significant and distinguishable entity whose components may lack individual distinction; or

Criterion D: properties that have yielded, or may be likely to yield, information important in prehistory or history.

An archaeological resource that is eligible only under NHPA Criterion D, as defined above, is considered valuable only in terms of the data that can be recovered from it. For such resources (such as pottery scatters and refuse deposits), it is generally assumed that there is minimal value attributed to preserving such resources in place. Conversely, resources eligible under Criteria A, B, and/or C, as defined above, are considered to have value intrinsic to the resource's location. In other words, Section 4(f) does not apply to a site if it is important chiefly because of what can be learned by data recovery and has minimal value for preservation in place.

For a property to be eligible for the NRHP, it must meet at least one of the four NRHP criteria described above. As stated above, with Criterion A, "Event," the property must make a contribution to the major pattern of American history. With Criterion B, "Person," the property must be associated with significant people of the American past. Criterion C, "Design/Construction," concerns the distinctive characteristics of the building by its architecture and construction, including having great artistic value or being the work of a master.

4.2 Coordination

49 U.S.C. 303(b) requires cooperation and consultation with the Secretary of the Interior (and the Secretaries of Housing and Urban Development and Agriculture, if appropriate) and the states in the development of transportation projects. The Authority and FRA have consulted with the SHPO, local jurisdictions, the California Department of Fish and Game (CDFG), and the Native American Heritage Commission and interested tribes to identify and assess impacts on Section 4(f) resources.

Table 4-1 lists the coordination to date with affected agencies.

Table 4-1
Section 4(f) Evaluation Consultation Summary

Date	Form	Participants	General Topic(s)
September 25, 2009	Meeting	California Department of Fish and Game, U.S. Army Corps of Engineers, and U.S. Fish and Wildlife Service staff; Authority, and project consultant staff	Reviewed potential impacts on Pixley National Wildlife Refuge and Allensworth Ecological Reserve
November 5, 2009	Meeting	California Department of Fish and Game, U.S. Army Corps of Engineers, and U.S. Fish and Wildlife Service staff, Authority, and project consultant staff	Reviewed potential impacts on Pixley National Wildlife Refuge and Allensworth Ecological Reserve
March 22, 2011	Meeting	FRA, Authority, and California State Parks	Reviewed potential impacts of project alternatives on Allensworth State Historic Park
March 23, 2011	Meeting	FRA, Authority, and City of Bakersfield Recreation and Parks Department	Reviewed potential impacts of project alternatives on Kern River Parkway
March 28, 2011	Letter	City of Fresno to FRA	Reviewed impacts of Fresno Station alternatives on Southern Pacific Railroad Depot

Abbreviations and Acronyms:
Authority = California High-Speed Rail Authority
FRA = Federal Railroad Administration
U.S. = United States

This evaluation provides a preliminary determination of affected Section 4(f) resources and use. A preliminary Section 4(f) evaluation was also included in the Draft EIR/EIS and made available for public review during the EIR/EIS 60-day comment period. This Section 4(f) evaluation is being made available to the public and the appropriate agencies for additional review and comment. The Authority and FRA will continue to consult with affected agencies and tribal representatives regarding the effects of the project on the features and attributes of Section 4(f) properties, and provide opportunity for public comment. The FRA will publish a final Section 4(f) evaluation with the Final EIR/EIS.

4.3 Purpose and Need

The purpose of the statewide HST System is to provide a reliable electric-powered high-speed train system that links the major metropolitan areas of the state and that delivers predictable and consistent travel times. An additional objective is to provide an interface with commercial airports, mass transit, and the highway network, and to relieve capacity constraints of the existing transportation system as increases occur in California intercity travel demand, in a manner sensitive to and protective of California's unique natural resources (Authority and FRA 2005).

The purpose of the Fresno to Bakersfield Section is to implement the California HST System between Fresno and Bakersfield to provide the public with electric-powered high-speed rail service that provides predictable and consistent travel times between major urban centers and connectivity to airports, mass transit, and the highway network in the south San Joaquin Valley, and to connect the northern and southern portions of the system. For more information on the project objectives and/or the need for the HST System in California and in the southern San Joaquin Valley region, please refer to Chapter 1.0.

4.4 Alternatives

This section describes the project alternatives, beginning with the No Project Alternative and then the HST alternatives. The HST alternatives begin with a single continuous alignment, hereinafter termed the "BNSF Alternative." This alternative extends from the northern end of the Fresno station tracks near Amador Street to the southern end of the Bakersfield station tracks in the vicinity of Baker Street. This alternative most closely follows the preferred alignment identified in the Record of Decision (ROD) for the Statewide Program EIR/EIS. Eight alternative alignments deviate from the BNSF Alternative for portions of the route. Stations are proposed in the Fresno, Hanford, and Bakersfield areas; station alternatives related to their corresponding alignment alternative are discussed below. Additionally, five alternative sites are being considered for the HMF. The project alternatives for the Fresno to Bakersfield Section are described in more detail in Chapter 2, Alternatives, and are briefly summarized below. Figure 4-1 shows the location of the alternative alignments.

4.4.1 No Project Alternative

The No Project Alternative considers the effects of growth planned for the region as well as existing and planned improvements to the highway, aviation, conventional passenger rail, and freight rail systems in the Fresno to Bakersfield study area through the 2035 time horizon for the environmental analysis. It does not include the construction of the HST or any associated facilities, and would thus have no impact on any Section 4(f) or Section 6(f) resources; however, it would not address the purpose and need for the project. This alternative is insufficient to meet existing and future travel demand; current and projected future congestion of the transportation system would continue to result in deteriorating air quality, reduced reliability, and increased travel times. Because the No Project Alternative does not meet the project purpose and need, it

is neither feasible nor prudent, and is not discussed further as an avoidance alternative for any Section 4(f) or Section 6(f) resources.

4.4.2 BNSF Alternative

The BNSF Alternative would extend from Fresno to Bakersfield; it would run adjacent to the BNSF Railway line to the extent allowable by engineering constraints. The BNSF Alternative would cross through Fresno, Kings, Tulare, and Kern counties.

The BNSF Alternative would begin at the north end of the Fresno station tracks adjacent to the western side of the UPRR right-of-way in the vicinity of Amador Street. The alignment would run southeast through Fresno on the western side of the UPRR until reaching East Jensen Avenue. The alignment would then curve to the south to join the BNSF Railway right-of-way on its western side at East Malaga Avenue south of Fresno. The BNSF Alternative would continue south through Kings County, generally following the BNSF tracks and passing east of the city of Hanford and through the eastern edge of the city of Corcoran. Continuing south into Tulare County, the alignment would be at-grade and adjacent to the BNSF right-of-way for approximately 25 miles. Finally, entering Kern County, this alternative would cross through the cities of Wasco, Shafter, and Bakersfield, generally following the BNSF right-of-way to the project terminus at the southern end of the Bakersfield station tracks.

The BNSF Alternative would include stations in Fresno and Bakersfield. A potential station serving the Visalia/Tulare/Hanford area (the Kings/Tulare Regional Station) would be located east of Hanford near the State Route (SR) 198 and SR 43 interchange.

Two alternative station sites are under consideration in Fresno. The Fresno station alternatives would be similarly situated in Downtown Fresno east of SR 99 on the BNSF Alternative. The Fresno Station–Mariposa Alternative (the preferred alternative) would be centered on Mariposa Street, and would be bordered by Fresno Street on the north, Tulare Street on the south, H Street on the east, and G Street on the west. The Fresno Station–Kern Alternative would be centered on Kern Street between Tulare Street and Inyo Street. Both station alternatives would occupy approximately 20 acres and include a station building, a bus transit center, and parking facilities.

The potential Kings/Tulare Regional Station–East Alternative would be located east of SR 43 (Avenue 8) and north of the Central Valley Rail Line (San Joaquin Valley Railroad). The entire site would cover approximately 25 acres and include a station building, a bus transit center, and parking facilities.

Two alternative station sites are also under consideration for the Bakersfield Station. The Bakersfield Station–North Alternative would be on the BNSF Alternative at the corner of Truxtun and Union Avenue/SR 204, east of the existing Amtrak station. The Bakersfield Station–South Alternative would be situated along the Bakersfield South Alternative, discussed below in Section 4.5.9, Bakersfield South Alternative. Both station alternatives would occupy approximately 20 acres and include a station building, a bus transit center, and parking facilities.

4.4.3 Hanford West Bypass 1 Alternative

The Hanford West Bypass 1 Alternative would parallel the BNSF Alternative from approximately East Kamm Avenue to approximately East Elkhorn Avenue in Fresno County. At East Conejo Avenue—where the BNSF Alternative crosses to the eastern side of the BNSF Railway tracks to pass east of the City of Hanford—the Hanford West Bypass 1 Alternative continues south, on the west side of the BNSF Railway tracks. Just south of East Elkhorn Avenue, the Hanford West Bypass 1 alignment would diverge from the BNSF Railway corridor and ascend onto an elevated

structure just south of East Harlan Avenue, crossing over the Kings River complex and Murphy Slough and passing west of the community of Laton. The elevated structure would be approximately 0.8 mile in length and reach a maximum height of approximately 40 feet to the top of the rail. The Hanford West Bypass 1 Alternative would return to grade just north of Dover Avenue. The alignment would continue at-grade, curve gently to the east, and travel between the community of Armona and the City of Hanford. This alternative rejoins the BNSF Railway corridor on its western side at about Lansing Avenue. The alignment would then ascend onto another elevated structure, traveling over Cross Creek and aquatic features north of Corcoran. The elevated structure would span approximately 3 miles and reach a maximum height of approximately 20 feet to the top of the rail. This alignment would return to grade just north of Nevada Avenue and would connect to the BNSF Alternative traveling through Corcoran at-grade, on the western side of the BNSF Railway corridor.

The Hanford West Bypass 1 Alternative includes a design option in which the alignment would be below-grade between Grangeville Boulevard and Houston Avenue. The alignment would travel below-grade in an open cut with side slopes as it transitions to a retained-cut profile, approximately 40 feet below ground level. As the alignment transitions back to grade just north of Houston Avenue, the open-cut profile would be used once more. The alignment would cross SR 198 and several local roads. Grade separations at Grangeville Boulevard, 13th Avenue, and West Lacey Boulevard would be determined based on the alignment design option selected (at-grade or below-grade).

The potential Kings/Tulare Regional Station–West Alternative would be located along this alignment east of 13th Avenue, between Lacey Boulevard and the SJVR railroad spur. This potential station includes an at-grade and below-grade design option as well.

4.4.4 Hanford West Bypass 2 Alternative

The Hanford West Bypass 2 Alternative would be the same as the Hanford West Bypass 1 Alternative from East Kamm Avenue to just north of Jackson Avenue; at this location, the Hanford West Bypass 2 would curve west, away from the Hanford West Bypass 1. The Hanford West Bypass 2 Alternative would then continue over Kent Avenue, the BNSF Railway corridor, and Kansas Avenue on an elevated structure approximately 1.5 miles in length. The structure would reach a maximum height of 55 feet to the top of the rail before returning to grade north of Lansing Avenue and continuing along the BNSF Railway corridor. Similar to the Hanford West Bypass 1 Alternative, Hanford West Bypass 2 would travel over Cross Creek and the aquatic features north of Corcoran and return to grade north of Nevada Avenue; however, the Hanford West Bypass 2 would be located on the eastern side of the BNSF Railway tracks to connect to either the Corcoran Elevated Alternative or the Corcoran Bypass Alternative.

The Hanford West Bypass 2 Alternative includes the same below-grade design option between Grangeville Boulevard and Houston Avenue as the Hanford West Bypass 1 Alternative, as well as the either at-grade or below-grade potential Kings/Tulare Regional Station–West Alternative. Roadway modifications at Grangeville Boulevard, 13th Avenue, and West Lacey Boulevard would depend on the alignment design option selected.

4.4.5 Corcoran Elevated Alternative

The Corcoran Elevated Alternative would be the same as the corresponding section of the BNSF Alternative except that it would pass through the City of Corcoran on the east side of the BNSF Railway right-of-way on an elevated structure. The elevated structure would reach a maximum height of approximately 40 feet to the top of the rail.

4.4.6 Corcoran Bypass Alternative

The Corcoran Bypass Alternative would parallel the BNSF Alternative from approximately Idaho Avenue south of Hanford to approximately Nevada Avenue north of Corcoran. The Corcoran Bypass Alternative would then diverge from the BNSF Alternative and swing east of Corcoran, rejoining the BNSF Railway route at Avenue 136. Similar to the corresponding section of the BNSF Alternative, the majority of the Corcoran Bypass Alternative would be at-grade. However, two elevated structures would carry the HST over Cross Creek and the Tule River.

4.4.7 Allensworth Bypass Alternative

The Allensworth Bypass Alternative would diverge from the BNSF Alternative at Avenue 84 in Tulare County, run west of the BNSF Railway right-of-way and Allensworth State Historic Park, and rejoin the BNSF Alternative at Elmo Highway in Kern County. This alternative was developed to avoid Allensworth State Historic Park and the Allensworth Ecological Reserve. The Allensworth Bypass Alternative would be at-grade except where it would be on an elevated structure to cross the Stoil railroad spur. The majority of the alignment would pass through Tulare County at-grade.

4.4.8 Wasco-Shafter Bypass Alternative

The Wasco-Shafter Bypass Alternative would diverge from the BNSF Alternative between Sherwood Avenue and Fresno Avenue, crossing over to the eastern side of the BNSF Railway tracks and bypassing Wasco and Shafter to the east. The Wasco-Shafter Bypass Alternative would rejoin the BNSF Alternative at Seventh Standard Road. The alignment would be at-grade.

4.4.9 Bakersfield South Alternative

The Bakersfield South Alternative parallels the BNSF Alternative at varying distances to the north from the Rosedale Highway (SR 58) to Chester Avenue. The alternative then curves south and parallels California Avenue. As with the corresponding segment of the BNSF Alternative, the Bakersfield South Alternative would begin at-grade but then be elevated starting at Palm Avenue through Bakersfield to its terminus at the southern end of the Bakersfield station tracks.

This alternative would include the Bakersfield Station–South Alternative, situated along Union and California avenues in Downtown Bakersfield, just south of the BNSF Alternative and the BNSF Railway right-of-way.

4.4.10 Bakersfield Hybrid Alternative

From Rosedale Highway (SR 58) in Bakersfield, the Bakersfield Hybrid Alternative follows the Bakersfield South Alternative as it parallels the BNSF Alternative (located to the north) at varying distances. At approximately A Street, the Bakersfield Hybrid Alternative diverges from the Bakersfield South Alternative, crosses over Chester Avenue and the BNSF ROW in a southeasterly direction, then curves back to the northeast to parallel the BNSF Railway tracks towards Kern Junction. After crossing Truxtun Avenue, the alignment curves to the southeast to parallel the UPRR tracks and Edison Highway to its terminus at Oswell Street. As with the BNSF and Bakersfield South alternatives, the Bakersfield Hybrid Alternative would begin at-grade and become elevated starting at Country Breeze Place through Bakersfield to Oswell Street.

This alternative would include the Bakersfield Station–Hybrid Alternative, located at the corner of Truxtun and Union Avenue/SR 204.

4.4.11 Heavy Maintenance Facility Site Alternatives

The Authority has determined that a HST heavy vehicle maintenance and layover facility (HMF) would be sited in either the Merced to Fresno Section or in the Fresno to Bakersfield Section of the California HST System. The HMF would be situated on an approximately 154-acre parcel close to the HST alignment. The HMF would also have connections to highways and utilities on a parcel zoned for heavy industrial activities.

The Authority is studying five HMF sites (see Figure 2-1) within the Fresno to Bakersfield Section, one of which may be selected (see Figure 4-1).

- Fresno Works–Fresno HMF Site – An approximately 590-acre site located within the southern limits of the city of Fresno next to the BNSF Railway right-of-way between SR 99 and Adams Avenue.
- Kings County–Hanford HMF Site – An approximately 510-acre site located southeast of the city of Hanford adjacent to and east of SR 43, between Houston and Idaho avenues.
- Kern Council of Governments (COG)–Wasco HMF Site – An approximately 420-acre site located east of Wasco between SR 46 and Filburn Street.
- Kern COG–Shafter East HMF Site – An approximately 490-acre site located in the city of Shafter on the eastern side of the BNSF Railway right-of-way between Burbank Street and Seventh Standard Road.
- Kern COG–Shafter West HMF Site – An approximately 480-acre site located in the city of Shafter on the western side of the BNSF Railway right-of-way between Burbank Street and 7th Standard Road.

4.5 Section 4(f) Applicability Analysis

Section 4.5.1 identifies the park, recreation, open space, and wildlife and waterfowl refuge properties that meet the criteria for protection as Section 4(f) resources. Section 4.5.2 identifies cultural resources that meet the criteria for protection as Section 4(f) resources. All Section 4(f) resources are shown on Figures 4-2 through 4-6, and Tables 4-2 and 4-3 provide information about the attributes of each of the properties that either have proximity impacts that could result in the potential for a Section 4(f) use (parks, recreation areas, open space, and wildlife and waterfowl refuges) or are located in the cultural resources APE.

4.5.1 Parks, Recreation, Open Space, and Wildlife and Waterfowl Refuges

The locations of parks, recreation and open space resources; and wildlife refuges in the study area are shown on Figures 4-2 through 4-6. No waterfowl refuges exist within the study area. Data collection to identify potential Section 4(f) resources consisted of a review of the plans and policies listed in Table 3.15-1 of the EIR/EIS Section 3.15 (Parks, Recreation, and Open Space), and the use of GIS data banks. The cities and counties provided the boundaries for parks and recreation resources located within 1,000 feet of alignment alternatives, 0.5 mile of an HST station, 0.5 mile of an HMF, and 1,000 feet of any road construction required to implement the HST System in GIS data format and in adopted plans.

Table 4-2, and the following text, describes Section 4(f) Parks, Recreation, Open Space, and Wildlife and Waterfowl refuge properties that have the potential to incur a Section 4(f) use, or

are located in close enough proximity to the alignment alternatives that discussion of the rationale for dismissing a Section 4(f) use is warranted.

Table 4-2
Park, Recreation, Open Space, and Wildlife and Waterfowl Refuges Evaluated for Section 4(f) Use

Property Name	Description	Alternative Alignment	Distance from Project Footprint (feet)
Father Wyatt Park	Location: Corcoran Size: 1 acre Features: playground, covered arbor, picnic tables and benches, unlighted softball field	BNSF, Corcoran Elevated	BNSF: 218 Corcoran Elevated: 230
Colonel Allensworth State Historic Park	Location: Tulare County Size: 924 acres Features: visitor's center, exhibits and programs, guided tours, picnic areas, and tent and recreational vehicle campsites	BNSF	BNSF: 0
Allensworth Ecological Reserve	Location: Tulare County Size: 5,224 acres Features: trails and wildlife-viewing areas	BNSF	BNSF: 0
McMurtrey Aquatic Park	Location: Bakersfield Size: 1.2 acres Features: outdoor swimming pools, water spray park, water slide, snack bar, picnic area	BNSF, Bakersfield South, Bakersfield Hybrid	BNSF: 37 Bakersfield South: 140 Bakersfield Hybrid: 121
Kern River Parkway	Location: Bakersfield Size: 1,138 acres Features: small community parks adjacent to the Kern River connected by a bike path	BNSF, Bakersfield South, Bakersfield Hybrid	BNSF, Bakersfield South, Bakersfield Hybrid: 0
Mill Creek Linear Parkway	Location: Bakersfield Size: 8 acres Features: 1.5-mile-long community park with pedestrian path and benches	BNSF, Bakersfield South, Bakersfield Hybrid	BNSF, Bakersfield South, Bakersfield Hybrid: 0

Acronyms:
HST = high-speed train
SR = state route

Father Wyatt Park

Size and Location

Father Wyatt Park, shown on Figure 4-3, is 1 acre in size and is located at 954 Flory Avenue in Corcoran. The park is located east of and adjacent to the BNSF railroad tracks.

Ownership

Father Wyatt Park is owned and maintained by the City of Corcoran.

Usage of Park (Intended; Actual/Current; Planned)

The park is intended to be used as a public recreational facility and offers a playground area, a covered arbor, picnic tables, benches, and an unlighted softball field. The park does not provide any vehicular access; parking is available on side streets adjacent to the park. Pedestrian access is available on all sides of the park; the park boundaries are not fenced. Actual park usage is consistent with its intended use.

Unusual Characteristics Reducing or Enhancing Park Value

The park is directly adjacent to an active railroad corridor and currently experiences noise and visual impacts associated with that corridor as a result of existing freight and passenger (Amtrak) traffic.

Colonel Allensworth State Historic Park

Size and Location

Colonel Allensworth State Historic Park, shown on Figure 4-4, is 240 acres and is located in rural Tulare County.

Ownership

Colonel Allensworth State Historic Park is owned and maintained by the State of California Department of Parks and Recreation.

Usage of Park (Intended; Actual/Current; Planned)

The park is intended to be used as a public recreational facility with a visitor center, exhibits and programs, guided tours, picnic areas, and 15 tent and RV campsites. Vehicular access is available at multiple points extending from Grant Road directly to the east of the park. Due to its isolated and rural location, the park does not provide convenient pedestrian access. Actual park usage is consistent with its intended use.

Unusual Characteristics Reducing or Enhancing Park Value

The property is a historically representative assemblage of buildings highlighting the county's agricultural history. Its undeveloped setting enhances its value as a historic and recreational facility for park users, making it more sensitive to noise and visual intrusion than recreational facilities in more developed or urbanized areas.

Allensworth Ecological Reserve

Size and Location

Allensworth Ecological Reserve, shown on Figure 4-4, is in rural Tulare and Kern counties and consists of 5,224 acres. The reserve is a series of noncontiguous parcels, many of which are not located in proximity to any of the alignment alternatives.

Ownership

Allensworth Ecological Reserve is owned and maintained by the State (i.e., the CDFG).

Usage of Park (Intended; Actual/Current; Planned)

The reserve provides protection for rare, threatened, and endangered native plants, wildlife, and aquatic species, and important terrestrial and aquatic habitat. The park offers public wildlife viewing from areas accessible through a gate located along SR 99, at locations located outside the study area of any of the project alignment alternatives. Park usage is consistent with its intended use.

Unusual Characteristics Reducing or Enhancing Park Value

Examples of special-status species known to be at this location are the San Joaquin kit fox, Tipton kangaroo rat, blunt-nosed leopard lizard, and golden eagle. The facility's value lies in its ability to provide habitat to special-status species rather than in its use as a public recreational facility. Linear transportation features, including SR 43 and the BNSF Railway, currently bisect some parcels of the reserve. There are no developed facilities within the reserve.

McMurtrey Aquatic Center

Size and Location

The McMurtrey Aquatic Center, shown on Figure 4-6, is a 1.2-acre aquatic center in Bakersfield.

Ownership

McMurtrey Aquatic Center is owned and maintained by the City of Bakersfield.

Usage of Park (Intended; Actual/Current; Planned)

The center is intended to be used for aquatic recreation, and contains outdoor swimming pools, a water spray park, a water slide, a snack bar, and picnic facilities. The park has numerous pedestrian access points on its north, west, and south sides; parking lots and on-street parking is also available on the north, west, and south sides of the facility. Actual park usage is consistent with its intended use.

Unusual Characteristics Reducing or Enhancing Park Value

The aquatic center is located in downtown Bakersfield near many existing urban features. Because of its existing urban location and context of use (aquatic recreation), use of the facility is not dependent on its visual setting or on low levels of ambient noise.

Kern River Parkway

Size and Location

Kern River Parkway, shown on Figure 4-6, is a 1,138-acre linear park located along the Kern River in Bakersfield.

Ownership

Kern River Parkway is owned and maintained by the City of Bakersfield.

Usage of Park (Intended; Actual/Current; Planned)

The parkway begins at the mouth of Kern Canyon and extends west to Interstate 5. The parkway consists of small, developed parks containing amenities such as picnic areas, horseshoe pits, and play fields, and is separated by undeveloped land owned both by the City of Bakersfield and

private parties. A bike path runs the length of the parkway. The parkway is intended to be used as a recreational facility; and is accessible through multiple access points along its length. Actual usage is consistent with its intended use.

Unusual Characteristics Reducing or Enhancing Park Value

The portion of the park within the study area is in Bakersfield and therefore is subject to noise associated with urbanized areas (e.g., existing transportation facilities). Urbanized features, such as buildings and transportation corridors, are currently visible from within the park.

Mill Creek Linear Park

Size and Location

Mill Creek Linear Park, shown on Figure 4-6, is an 8-acre, 1.5-mile-long linear park along the bank of the Kern Island canal in Bakersfield.

Ownership

Mill Creek Linear Park is owned and maintained by the City of Bakersfield.

Usage of Park (Intended; Actual/Current; Planned)

The park's pedestrian pathway is paved and connects the Central Park at Mill Creek to schools in Bakersfield. Benches line the pathway. The pathway is used for pedestrian recreation, with access available throughout its 1.5 mile length. Park usage is consistent with its intended use.

Unusual Characteristics Reducing or Enhancing Park Value

The park is in an urbanized area of Bakersfield and is currently subject to noise associated with developed areas (e.g., existing transportation facilities). Urbanized features, such as buildings and transportation corridors, are visible from within the park. The pathway is adjacent to buildings and residential communities in Bakersfield that further reduce the noise and visual sensitivity of the facility.

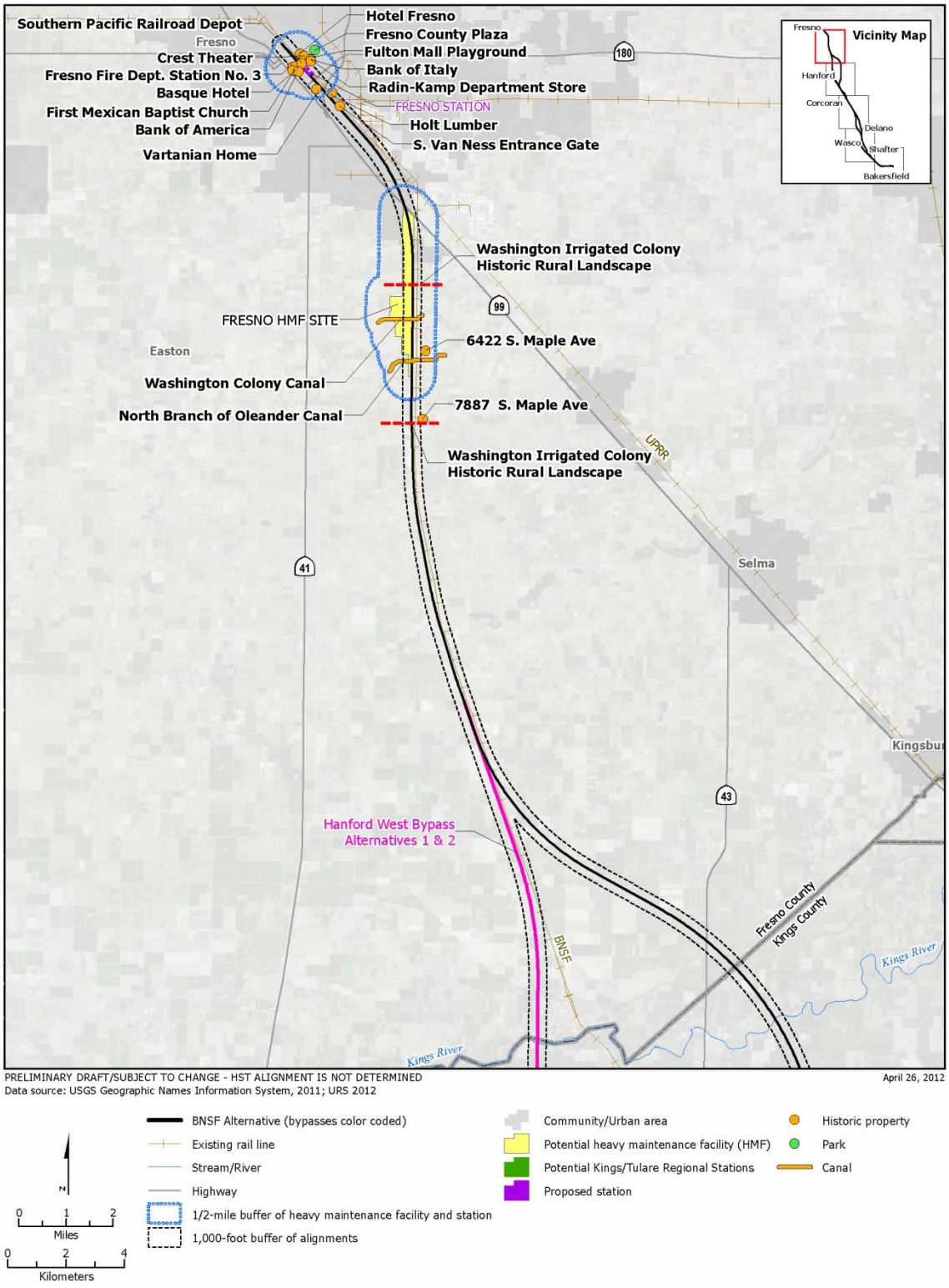

Figure 4-2
Fresno area: Section 4(f) properties within the project study area

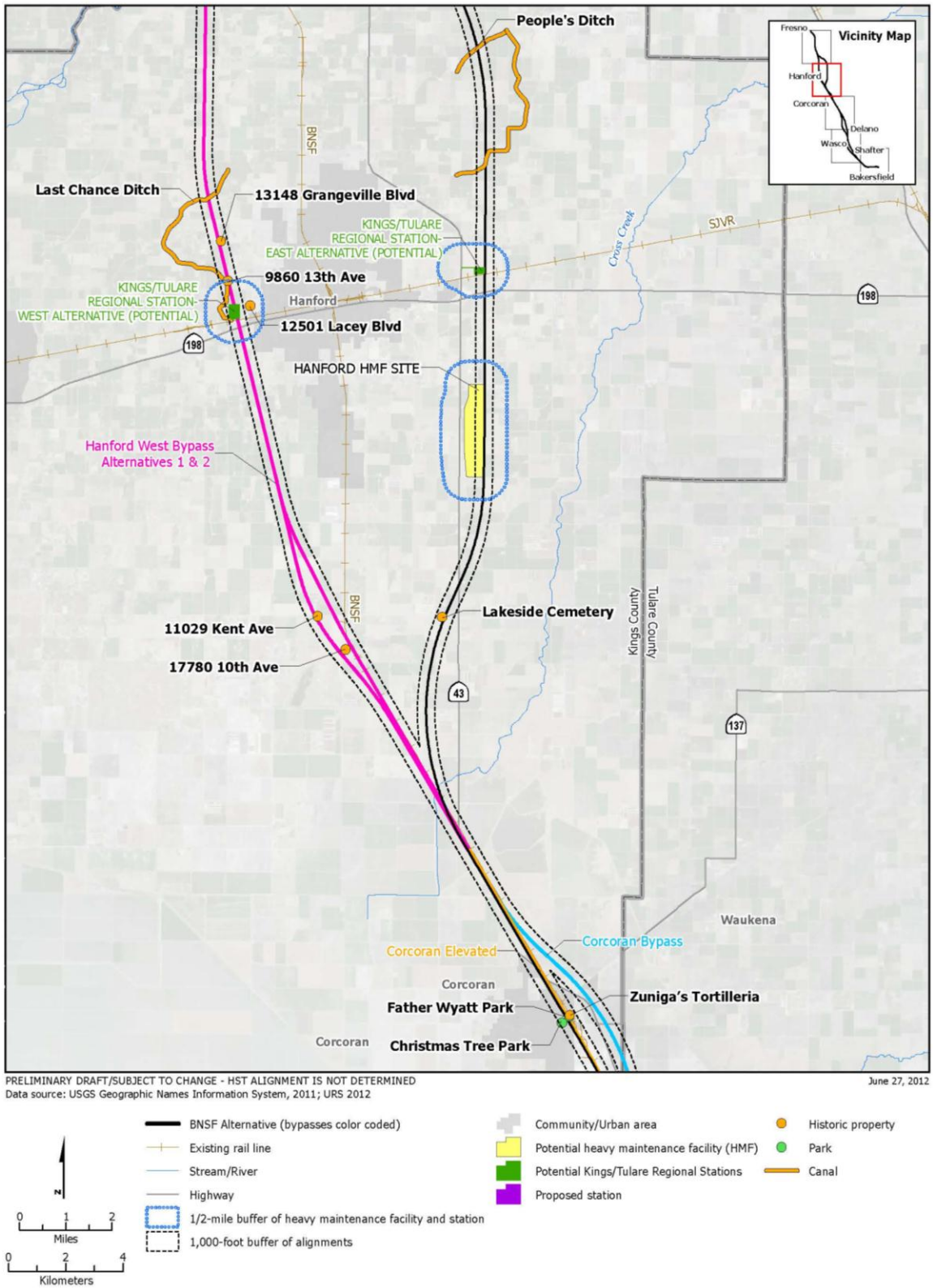

Figure 4-3
Hanford area: Section 4(f) properties within the project study area

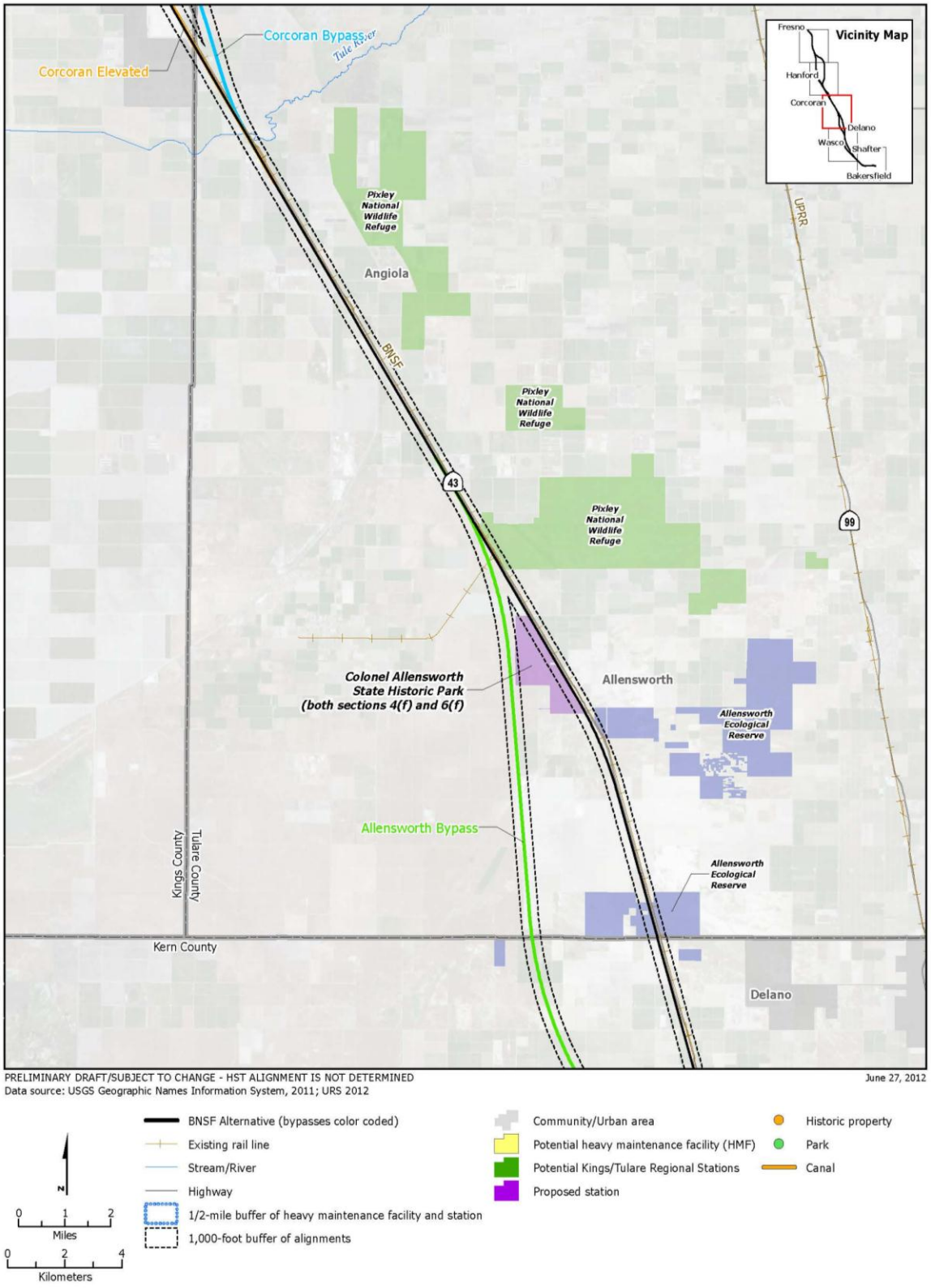

Figure 4-4
Corcoran area: Section 4(f) and 6(f) properties within the project study area

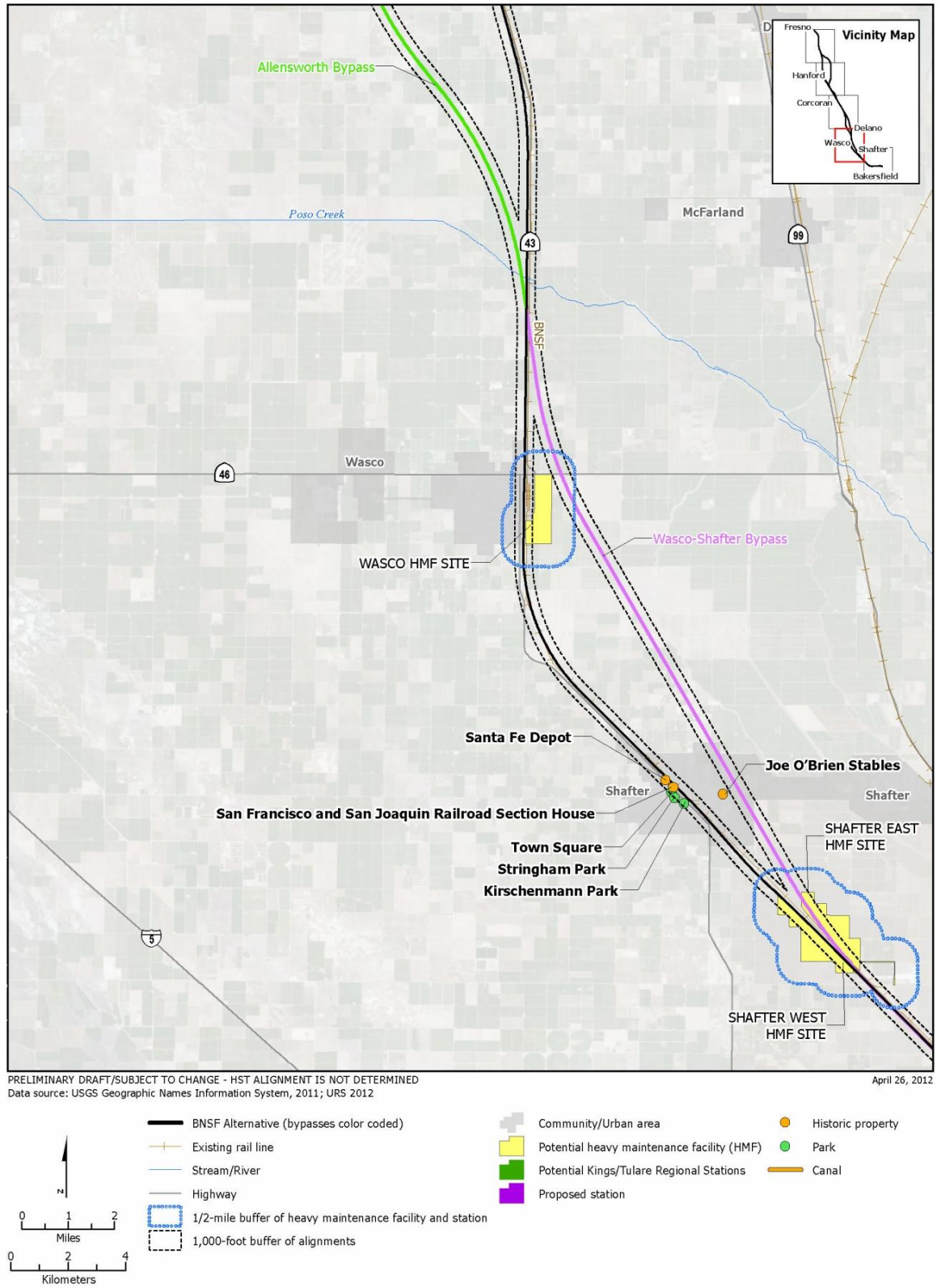

Figure 4-5
Wasco-Shafter area: Section 4(f) properties within the project study area

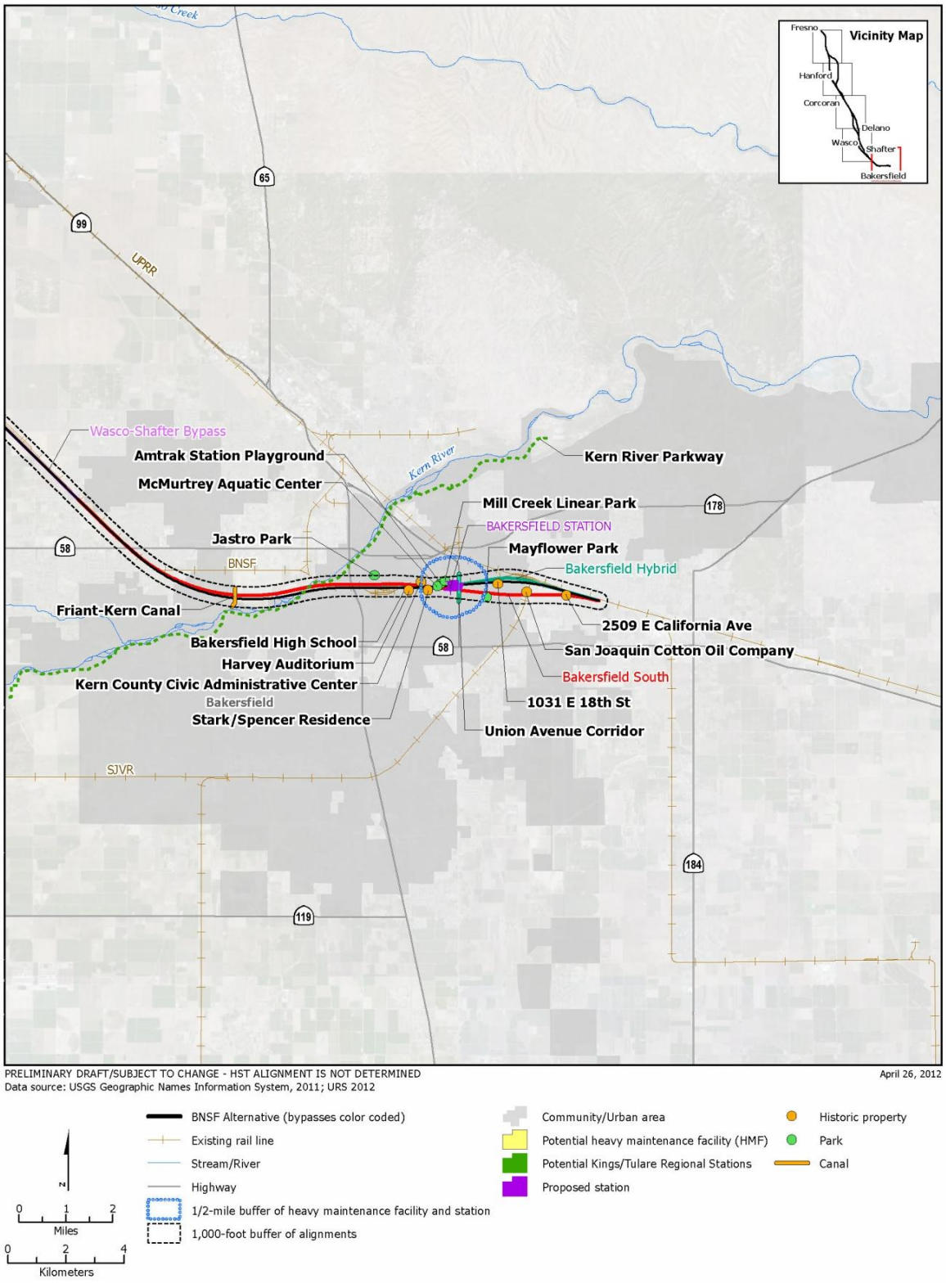

Figure 4-6
Bakersfield area: Section 4(f) properties within the project study area

4.5.2 Cultural Resources

For purposes of identifying cultural resources potentially protected under Section 4(f), the study area is the same as the cultural resources APE, which is defined in Section 3.17, Cultural and Paleontological Resources. Within the archaeological and historic property APEs, background research and the field survey revealed 35 historic properties listed or eligible for listing in the NRHP that qualify as Section 4(f) resources. These properties are shown on Figures 4-2 through 4-6. There are no known archaeological resources in the study area that qualify as Section 4(f) resources. Table 4-3 describes resources listed in, or determined or recommended to be eligible for, the NRHP that are located within the cultural resources APE (defined in Section 3.17, Cultural and Paleontological Resources). The APE that the resource is within is identified in Table4-3; however, only properties that incur an adverse effect are discussed further in Section 4.6.2 as only properties incurring an adverse effect have a potential to incur a Section 4(f) use.

Table 4-3
Resources Listed in, or Determined or Recommended Eligible for, the National Register of Historic Places

Resource Name	Address	County	Year Built	Current Status Code	HST Alternative in which property is located in APE
Hotel Fresno	1257 Broadway	Fresno	1912	2S2	BNSF, Fresno Station–Mariposa, Fresno Station–Kern
Crest Theater	1160 Broadway Plaza	Fresno	1948	2S2	BNSF
Fresno Fire Department Station No. 3	1406–1430 Fresno St	Fresno	1939	3S2	BNSF, Fresno Station–Mariposa, Fresno Station–Kern
Basque Hotel/EA Walrond Building	1102 F St	Fresno	1922	2S2	BNSF, Fresno Station–Mariposa
Bank of Italy	1015 Fulton Mall	Fresno	1918	1S	BNSF
First Mexican Baptist Church	1061 E St	Fresno	1924–1929	2S	Fresno Station–Mariposa, Fresno Station–Kern
Southern Pacific Railroad Depot	1033 H St	Fresno	1889	1S	BNSF, Fresno Station–Mariposa, Fresno Station–Kern
Bank of America	947–951 F St	Fresno	1908	2S	BNSF
Radin-Kamp Department Store	959 Fulton Mall	Fresno	1924–1925	2S	BNSF
Azteca Theater	836-840 Fresno St	Fresno	1950	2S2	BNSF, Fresno Station–Mariposa, Fresno Station–Kern
Vartanian Home	362 F St	Fresno	circa 1895	2S2	BNSF
Holt Lumber	1916 S. Cherry Ave	Fresno	1920	2S2	BNSF
South Van Ness Entrance Gate	2208 S. Van Ness Ave	Fresno	1920s	2S2	BNSF

Table 4-3
Resources Listed in, or Determined or Recommended Eligible for, the National Register of Historic Places

Resource Name	Address	County	Year Built	Current Status Code	HST Alternative in which property is located in APE
Washington Irrigated Colony Historic Rural Landscape	Rural Fresno County	Fresno	1878–1910	2D	BNSF
Washington Colony Canal	Rural Fresno County	Fresno	1878–1880	2D2	BNSF, Fresno Works HMF
6422 S. Maple Ave	6422 S. Maple Ave	Fresno	1908	2D2	BNSF
7887 S. Maple Ave	7887 S. Maple Ave	Fresno	1900	2D2	BNSF
North Branch of Oleander Canal	Rural Fresno County	Fresno	1880s	2D2	BNSF, Fresno Works HMF
People's Ditch	Rural Kings County	Kings	1873–1878	2S2	BNSF
Last Chance Ditch	Rural Kings County	Kings	1873–1874	3S2	Hanford West Bypass 1 and Bypass 2, Kings/Tulare Regional Station West
13148 Grangeville Blvd	13148 Grangeville Blvd	Kings	1914-1919	3S2	Hanford West Bypass 1 and Bypass 2
9860 13th Ave	9860 13th Ave	Kings	1881	3S2	Hanford West Bypass 1 and Bypass 2, Kings/Tulare Regional Station West
12501 Lacey Blvd	12501 Lacey Blvd	Kings	1935	3S2	Hanford West Bypass 1 and Bypass 2, Kings/Tulare Regional Station West
11029 Kent Avenue	11029 Kent Ave	Kings	1890s–1920s	3S2	Hanford West Bypass 1
17780 10th Ave	17780 10th Ave	Kings	1920	3S2	Hanford West Bypass 2
Lakeside Cemetery	Rural Kings County	Kings	1870s	2S2	BNSF
Zuniga's Tortilleria	901 Flory Ave	Kings	1950	2S2	BNSF, Corcoran Elevated
Allensworth Historic District (also known as Allensworth State Park)	4129 Grant Dr	Tulare	1908–1912	1D	BNSF
Santa Fe Depot	150–200 Central Valley Highway	Kern	1917	1S	BNSF
San Francisco and San Joaquin Valley Railroad Section House	434 Central Valley Highway	Kern	1898	2S2	BNSF

Table 4-3
Resources Listed in, or Determined or Recommended Eligible for, the National Register of Historic Places

Resource Name	Address	County	Year Built	Current Status Code	HST Alternative in which property is located in APE
Joe O'Brien Stables	1320 E. Lerdo Hwy	Kern	1956	2S2	Wasco-Shafter Bypass
Friant-Kern Canal	Rural Kern County	Kern	1945–1951	2S2	BNSF, Bakersfield South, Bakersfield Hybrid
Harvey Auditorium, Bakersfield High School	1241 G St	Kern	1948	2S2	BNSF, Bakersfield Hybrid
Kern County Civic Administrative Center	1315–1415 Truxtun Ave	Kern	1956-1959	2S2	BNSF, Bakersfield South, Bakersfield Hybrid
Stark/Spencer Residence	1321 N St	Kern	1898	2S2	BNSF, Bakersfield South, Bakersfield Hybrid
Union Avenue Corridor	Portions of SR 204	Kern	1933	2S2	BNSF, Bakersfield South, Bakersfield Hybrid; Bakersfield Station North/South/Hybrid
1031 E. 18th St	1031 E 18th St	Kern	1900	2S2	BNSF, Bakersfield South, Bakersfield Hybrid
San Joaquin Cotton Oil Company	1660 E. California Ave	Kern	1920s	2S2	BNSF, Bakersfield South, Bakersfield Hybrid
2509 E. California Avenue	2509 E. California Ave	Kern	1898	2S2	BNSF, Bakersfield South, Bakersfield Hybrid

Code 1D: District listed in the NRHP
Code 1S: Individual property listed in the NRHP
Code 2D: District determined eligible for the NRHP through Section 106 process
Code 2D2: Individual property determined eligible for NRHP and as a contributor to an NRHP-eligible district
Code: 2S2: Individual property determined eligible for the NRHP through Section 106 process
Code 3S2: Recommended eligible for listing in the NRHP as an individual property through survey evaluation

Below are brief descriptions of the properties in the study area that are listed, or have been determined eligible for listing, in the NRHP, and are therefore protected under Section 4(f):

- Hotel Fresno – Assessor's Parcel Number (APN) 466-214-01 (1257 Broadway). The Hotel Fresno is a seven-story steel-frame and concrete-block Classical Revival style building constructed in 1912. The building has been determined eligible for listing in the NRHP under Criterion A for its association with Fresno social life and the local community from 1912 to 1960; and under Criterion C for its Classical Revival architectural style, as the first high-rise building in Fresno, and as an early and important example of the Central Valley work of prominent California architect Edward T. Foulkes.

- Crest Theater – APN 466-212-12 (1160 Broadway Plaza). The Crest Theater is a tall, two-story, reinforced-concrete building constructed in 1948. The building is eligible for listing in

the NRHP under Criterion C, at the local level, as an important example of Moderne style architecture that includes a neon marquee and decorated ticket booth.

- Fresno Fire Department Station Number 3 – APN 467-065-08T (1406–1430 Fresno Street). This property includes the main two story Moderne style fire house, as well as a secondary one story shop building that has a similar style Moderne façade. The station was completed in 1939. The buildings have been determined eligible for listing in the NRHP under Criteria A and C because the property is a significant example of a Works Progress Administration project in Fresno, and it is a significant local example of Streamline Moderne architectural style. The property also includes a training tower built in 1952 that is not NRHP eligible.

- Basque Hotel/EA Walrond Building – APN 467-062-08 (1102 F Street). The Basque Hotel is a two-story, L-shaped brick building constructed in 1922. The building is eligible for the NRHP under Criterion A for its significant role in the Basque community in Fresno from the 1920s to the 1960s as a place for Basque immigrants to congregate and maintain their cultural tradition.

- Bank of Italy – APN 466-213-07 (1015 Fulton Mall). The Bank of Italy building is an eight-story, Italian Renaissance Revival building constructed in 1918 with an ornate terra-cotta and brick exterior. This property is listed in the NRHP under Criterion C as "one of the two most significant commercial buildings in the downtown area," and is an example of the Italian Renaissance Revival and early skyscraper development.

- First Mexican Baptist Church – APN 467-103-01 (1061 E Street). This two-story brick building was built between 1924 and 1929, and was later reinforced in the 1960s. It has a restrained Mission Revival design that features a stepped parapet and three-story bell tower. It is recommended to be individually eligible for listing in the NRHP under Criteria A and C for its association with early 20th century Mexican-American local community events and as a good local example of this architectural style.

- Southern Pacific Railroad Depot – APN 467-03-031-ST (1033 H Street). The Fresno Southern Pacific Railroad Depot property contains two buildings: a depot and a Pullman Shed. The depot is a one-and-a-half-story, brick Queen Anne-style building constructed in 1889. The depot is listed in the NRHP. The depot is significant at the local level under Criterion A for its association with the contribution of the Southern Pacific Railroad to the development of Fresno, and under Criterion C as an important example of the Queen Anne architectural style, as evidence by its prominent rounded turret, flared roof line, arched windows, and eave brackets. The Pullman Shed is a reinforced concrete shallow gable roof structure with open-sided walls with lovers built to cover sleeping cars as they awaited connection with long-distance trains passing through Fresno. The shed it is a contributing element of the depot property. The Pullman Shed is eligible at the local level under Criterion A for its association with early twentieth-century passenger rail service in Fresno, and under Criterion C for its rare construction type. The Pullman Shed has also recently been added to the Fresno Local Register.

- Bank of America – APN 467-07-401 (947–951 F Street). This two-story commercial building constructed around 1908 has a stucco exterior, corner tower, and Mission Revival detailing. The building is eligible for listing in the NRHP under Criterion A as Fresno's first Japanese-owned lending institution and offered a valuable service to Fresno's Japanese community with a period of significance from 1908-1925, and under Criteria C for its restrained expression of the Spanish Mission Revival style.

- Radin-Kamp Department Store – APN 468-281-01 (959 Fulton Mall). This four-story reinforced-concrete commercial building completed in 1925 has brick exterior facing and

terracotta Beaux Arts details at the frieze and cornice. The building has been determined eligible for listing in the NRHP under Criterion C as an important local example of early-twentieth-century commercial architecture.

- Azteca Theatre – APN: 467-072-06 (836-840 F Street). The Azteca Theatre is an Art Deco-style theatre constructed circa 1950. This building is eligible for listing in the NRHP under Criterion B at the local level for its association with Arturo Tirado, an important community leader and civic activist in Fresno's Hispanic community. Arturo Tirado operated this building as the city's only Spanish-language movie theater in the 1950s and 1960s and used the theater for cultural and social activism.

- Vartanian Home – APN 467-092-34 (362 F Street). This farm complex was constructed circa 1895 and consists of a Queen Anne-style residence, barn, hexagonal tank house, and outhouse. The farmstead is eligible for listing in the NRHP under Criterion C on the local level as an important example of Queen Anne architecture and as an example of an intact nineteenth-century farm complex reflecting the importance of agriculture to the development of Fresno.

- Holt Lumber – APN 467-020-13 (1916 South Cherry Avenue). This one-story, brick Italian Renaissance Revival office building with classically influenced trim was constructed circa 1920. It is eligible for listing in the NRHP under Criterion C as a distinctive example of an early-twentieth-century Italian Renaissance commercial building.

- South Van Ness Entrance Gate – No APN (2208 South Van Ness Avenue). Constructed in the 1920s, the South Van Ness Entrance Gate is a piece of community boosterism in the form of an arched truss with a sheet metal sign adorning a historic Fresno entry point. The structure is eligible for the NRHP at the local level under Criterion A for its importance within the context of early-twentieth-century transportation in Fresno, and under Criterion C for its significance as an early roadside sign in Fresno.

- Washington Irrigated Colony Historic Rural Landscape – No APN (Rural Fresno County). The Washington Irrigated Colony is eligible for listing in the NRHP under Criteria A and C as a rural historic landscape district with a period of significance from 1878 to 1910. The district is significant for its association with pioneering settlement patterns and irrigated agriculture (Criterion A), as well as for the architecture of some of its contributing elements (Criterion C). Contributors to the district include 6,520 acres within the district boundaries (planted in raisin grapes, historic fruit and nut trees, oranges and onions; dairy and pastureland; eucalyptus groves; tule ponds; minor remaining street trees); 55 farmsteads; approximately 22 linear miles of open earthen canals; and the north-south and the east-west grid platted for the colony. Most of the landscape district is outside the APE for this project; however, two contributing farmsteads (6422 and 7887 South Maple Avenue) and two irrigation canals (Washington Colony Canal and North Branch of Oleander Canal) are located in the APE and are described below.

- Washington Colony Canal – No APN (Rural Fresno County). The Washington Colony Canal is a dirt-lined irrigation canal constructed between about 1878 and 1880 as an integral part of the Washington Irrigated Colony. The canal has been determined eligible for the NRHP as a contributor to the Washington Irrigated Colony Historic Rural Landscape under Criteria A and C for its role in providing agricultural water for the settlement and development of the Washington Colony and for its design, which is a good example of a pioneer era canal.

- 6422 South Maple Avenue – APN 334-25-016. This farmstead, constructed circa 1908 during the development of the historically significant Washington Irrigated Colony, is eligible for listing in the NRHP as a contributing element of the Washington Irrigated Colony Historic Rural Landscape. The property is both a contributor to the eligible district and individually

eligible for listing on the NRHP under Criteria A and C. Together with 54 other farmsteads the building is significant for its association with the founding and settlement of the Washington Irrigated Colony. Individually it is a significant example of rural architecture in the Queen Anne style characterized by its residence and water tower, with decorative shingles, bay windows, and elaborate trim.

- 7887 South Maple Avenue – APN 335-11-042. This farmstead is eligible for listing in the NRHP as a contributing element of the Washington Irrigated Colony Rural Historic Landscape. The property was built circa 1900 during the period of initial settlement of this significant colony and is a contributor to the eligible district under NRHP Criteria A and C for its association with the founding and settlement of the Washington Irrigated Colony. Together with the other 54 period farmsteads, the rural Folk Victorian architecture, with its simple plan, is an important component illustrating the settlement of the colony.

- North Branch of Oleander Canal – No APN (Rural Fresno County). The North Branch of the Oleander Canal is a dirt-lined irrigation canal constructed in the 1880s as an integral part of the historically significant Washington Irrigated Colony. A previous survey identified the canal as eligible for the NRHP as a contributor to the Washington Irrigated Colony Historic Rural Landscape, and it is eligible under Criteria A for its association with the settlement and agricultural development of the Washington Colony and under Criterion C and for its design, which is a good example of a pioneer era canal.

- Last Chance Ditch – No APN (Rural Kings County). This property is an earth-lined irrigation canal that diverts water from the Kings River and was initially constructed by the Last Chance Water Ditch Company in 1873 and 1874. Running south through the area west of Hanford, the main ditch is about 6.5 miles long before it splits into three branches that continue another 5 or 6 miles. A roughly 0.7-mile segment of the main ditch, and an approximately 2.4-mile section of the ditch's eastern branch are within the APE for this project. The Last Chance Ditch at these locations is eligible for NRHP under Criterion A for its important association with the successful agricultural settlement pattern in the Mussel Slough region in the 1870s that developed and endured through the establishment of a secure irrigation water supply delivered by Last Chance Ditch and the other local pioneering canal systems. The property is also important for its association with the events that led to the Mussel Slough Tragedy in 1880, a well-known deadly conflict that arose during land disputes between San Joaquin Valley farmers/settlers and the Southern Pacific Railroad at the time.

- 13148 Grangeville Boulevard – APN 910-002-0000. This large two-story rural residence has an attached water tank house, and was constructed between 1914 and 1919. This property is eligible for listing in the NRHP under Criterion C as an important local example of Foursquare design with Colonial Revival stylistic elements. The property is also significant for its attached tank house, which illustrates an important early twentieth century transitional method of construction for rural residential water supply that also provided additional interior space connected with the main residence.

- 9860 13th Avenue – APN 9070018000. This farm complex consists of a two-story Queen Anne-style residence, remains of a tank house, and some small outbuildings. The house was constructed about 1881 and is eligible for listing in the NRHP under Criterion A for its association with pioneering agricultural settlement of the Mussel Slough area that developed and endured through the establishment of a secure irrigation water supply delivered by Last Chance Ditch and the other local pioneering canal systems. It is also eligible under Criterion C as a significant local example of folk Queen Anne style architecture.

- 12501 Lacey Boulevard – APN 018102111000. This farm complex consists of a one-story adobe residence and several outbuildings. The residence, built in 1935, was designed and built by the owners from adobe bricks manufactured on site, during the early period of a

mid-twentieth century revival of adobe residential construction. The property is eligible for listing in the NRHP under Criterion C for the architectural significance of the residence, which is an important local example of vernacular Adobe Ranch Style that is distinctive for its owner/builder design.

- People's Ditch – No APN (Rural Kings County). This property is an earth-lined irrigation canal with several branches constructed by local farmers between 1873 and 1878, with an aggregate length of the main channel and branches totaling 37 miles. The canal enabled significant agricultural development through the Mussel Slough area. An approximately 1.4-mile segment of the main ditch and an approximately 4-mile section of its east branch intersect the APE for the BNSF Alternative. These segments are eligible for listing in the NRHP at the state level of significance under Criterion A because of the canal's important association with the successful agricultural settlement pattern in the Mussel Slough region in the 1870s that developed and endured through the establishment of a secure irrigation water supply delivered by this and the other local pioneering canal systems. The canal is also important for its association with the events that led to the Mussel Slough Tragedy in 1880, a well-known deadly conflict that arose during land disputes between San Joaquin Valley farmers/settlers and the Southern Pacific Railroad at the time. There are portions of the canal located in the APE for the Hanford West Bypass alternatives; however these segments do not retain integrity, are not eligible for listing in the NRHP, and therefore do not receive protection under Section 4(f).

- 11029 Kent Avenue – APN 28220067000. This farm complex consists of a one-story main residence, cottage, tank house, and various barns and outbuildings representing an operating farm from 1908-1942. The buildings were constructed between the 1890s and 1920s. This property is eligible for listing in the NRHP under Criterion C as an important local example of an intact early twentieth-century farm complex that includes significant Folk Victorian Queen Anne architecture.

- 17780 10th Avenue – APN: 028220018000. This Craftsman Bungalow residence is located in Guernsey, in unincorporated Kings County. The house features an attached water tank house, and the farmstead includes a detached garage and shed also constructed in about 1920. This property is eligible for listing in the NRHP under Criterion C for its design that includes an attached tank house, which illustrates an important early twentieth century transitional method of construction for rural residential water supply that also provided additional interior space connected with the main residence.

- Lakeside Cemetery – APN 028-20-200-4000 (Kent Avenue, Rural Kings County). This historic property is a 1.5-acre rural cemetery located approximately 7 miles south of Hanford, and features masonry and concrete grave markers, lawn, and shade trees. Established in the 1870s, as the first cemetery in the region serving pioneer families, the cemetery is eligible for the NRHP under Criterion A for its association with the early settlement of the area south of Hanford that would become the Lakeside District and it meets the NRHP "Criteria Consideration D for Cemeteries" for its important association with pioneer settlement period in this portion of Kings County. The cemetery meets Criteria Consideration D because of its age and its association with the founding of the Lakeside District, which was a locally significant pioneer community. This cemetery, therefore, meets the Criteria Consideration D requirement for its association with the historically important settlement of the district.

- Zuniga's Tortilleria – APN: 030-184-010-000 (901 Flory Avenue, Corcoran). Zuniga's Tortilleria is a one-story concrete-block building constructed circa 1950. The building is eligible for the NRHP under Criterion A at the local level for its important association with cultural practices of Corcoran's Mexican-American residents. The building reflects the cultural role of Latina women in domestic areas like tortilla production and the opportunities it

represented to entrepreneurial women like Carmen Zuniga to establish their own businesses within the cultural fabric of their community. As such it illustrates aspects of the Mexican-American culture and a rare example of a Latina run business from the mid-twentieth century.

- Allensworth Historic District – APNs 331-100-030, 331-130-003, 331-141-004, 331-151-011, 331-161-020, 333-350-041 (4129 Grant Drive). The Allensworth Historic District, also known as Colonel Allensworth State Historic Park, encompasses about 60 acres, which include approximately 20 historic-era, reconstructed buildings and contemporary park administration buildings. As the only town in California that was founded, financed, and governed by African-Americans, the historic district is listed in the NRHP and is significant under Criterion A in the context of agriculture, education, politics, religion, social history, military, literature, and social history. The district is also significant under Criterion B for its association with the town's founder, Lieutenant Colonel Allen Allensworth. Contributing elements of the historic district include the elementary school, Colonel Allensworth's residence, Grosse's Drugstore, the railroad ticket office, and Singleton's General Store and Post Office.

- Santa Fe Depot – APN 027-03-008 (150–200 Central Valley Highway). The Santa Fe Passenger and Freight Depot in Shafter is a two-story, wood-frame railroad depot constructed in 1917 using standard railroad plans. The building is listed in the NRHP under Criterion C as an example of a standard combination frame depot that incorporates freight, passenger, and express services that were once common in small Central Valley railroad towns.

- San Francisco and San Joaquin Valley Railroad Section House – APN 027-07-028 (434 Central Valley Highway). This building is a small, wood-frame, folk-style residence with Craftsman details, constructed in 1898. It was one of the first buildings constructed in Shafter and it is associated with the construction of the San Francisco and San Joaquin Valley railroad, which is important as the railroad that was established in the 1890s to break the Southern Pacific Railroad's monopoly in the San Joaquin Valley. The building is eligible for the NRHP under Criterion A for its association with the founding of Shafter. Additionally, the building is eligible under Criterion C as an example of a section house built by the San Francisco and San Joaquin Valley Railway.

- Joe O'Brien Stables – APN 089-090-29 (1320 East Lerdo Highway). This property consists of a horse track, a stables area with five buildings, and a residential area with two houses, two detached garages, and a storage building, all of which were constructed circa 1956. The stables complex is eligible for the NRHP under Criterion B for its association with famous and highly successful harness racer Joe O'Brien. The property served as his training base during this period of prominence in the late 1950s.

- Friant-Kern Canal – No APN, (Kern County). The Friant-Kern Canal is a 152-mile gravity-fed earth- and concrete-lined canal built between 1945 and 1951 that terminates at the Kern River northwest of Bakersfield. An approximately 1,100 feet section of the canal intersects the APE. The canal has been determined eligible for listing in the NRHP under Criterion A at the state level of significance for its importance as a key component of California's Central Valley Project (CVP), facilitating expansion of irrigated lands on the east side of the central-southern reaches of the Central Valley that developed into some of country's top producing agricultural counties.

- Harvey Auditorium – APN 004-05-201 (1241 G Street). Bakersfield High School's Harvey Auditorium is a Streamline Moderne-style concrete theater completed in 1948 with smooth rounded corners and decorative horizontal and vertical bands. The building is eligible for the NRHP under Criterion C as a significant example of local master architect Charles Biggar, who

designed several important Bakersfield buildings, including the NRHP listed Bakersfield Californian Building and the First Baptist Church. The auditorium represents his later work in the Streamline Moderne style.

- Kern County Civic Administrative Center – APN 006-29-001 (1315-1415 Truxtun Avenue). This property consists of a large county government complex with four buildings in a U-shaped layout built between 1956 and 1959 in the International Style. The complex is eligible for listing in the NRHP at the local level under Criterion A as one of the key projects in the redevelopment of Bakersfield and Kern County following the devastating earthquakes that hit the area in the summer of 1952. It is also eligible under Criterion C for its architectural design in the International Style, highlighted by the design's use of unifying architectural elements and materials, such as aluminum-frame windows to provide a cohesive design among four buildings. The design, as four closely placed buildings, was among the significant seismic-safety features included in response to the disaster. Also, a recent National Park Service special resource study and environmental assessment prepared in 2011 identified a component of the complex, the Kern County Superior Court, as potentially eligible under Criteria A and B for its association with the farm labor movement led by Cesar Chavez. Specifically, the courts building is associated with the 1968 hunger strike and protests held here during litigation related to the Delano grape boycott and strike, and for the ruling in favor of the farm workers that represented a turning point in the movement.

- Stark/Spencer Residence – APN 006-430-02 (1321 N Street). This two-story wood-frame residence was constructed in 1898 in the Queen Anne and Eastlake styles characterized by decorative shingles, delicate spindle woodwork, complex roofline, and distinctive porches. The building has been determined eligible for listing in the NRHP under Criterion C as a distinguished example of its architectural style.

- Union Avenue Corridor – No APN (Bakersfield). This segment of SR 204 (old US 99) in Bakersfield has been determined eligible for listing in the NRHP under Criterion A, at the state level of significance. The corridor was identified by a Caltrans study that concluded the roughly 6-mile segment of old US 99 (on Golden State Road and Union Avenue between modern Airport Drive and Brundage Lane) in Bakersfield is significant for its association with early- to mid-twentieth-century highway construction including six lane roadway, landscaped median, sidewalks, curbs, gutters, and bridges and the associated mixed commercial development of restaurants, motels, and stores that occurred as a result of the placement of the corridor through Bakersfield. The corridor crosses through the APE on Union Avenue.

- 1031 East 18th Street – APN 017-260-07. This small wood-frame Folk Victorian residence was constructed circa 1900 and displays some Queen Anne stylistic details including fish scale shingles and strongly articulated molding and cornice in the pediment, as well as the cutaway bay that has wide window surrounds and decorative crowns. The building is eligible for listing in the NRHP under Criterion C as an important local example of Folk Victorian architecture.

- San Joaquin Cotton Oil Company – APN 017-490-14 (1660 East California Avenue). The former San Joaquin Cotton Oil Company property was a cotton oil and cotton products production complex. Established in the 1920s, the property includes a steel water tank and seven steel frame / metal sided and wood frame / sided buildings. It is eligible for listing in the NRHP under Criterion A at the local level of significance for its direct and important association with the early cotton industry in Kern County, playing a crucial role in the expanding demand for cotton and cotton byproducts during the 1920s as the commodity went on to become a major crop in Kern County.

- 2509 East California Avenue – APN 141-130-25. This small wood-frame Folk Victorian residence was constructed in about 1898 and displays some Queen Anne stylistic details including its dormer gable with articulated molding and cornice, spindlework frieze, and a cutaway bay with wide window surrounds. The building is eligible for listing in the NRHP under Criterion C as an important local example of Folk Victorian architecture.

4.6 Preliminary Section 4(f) Use Assessment

4.6.1 Park, Recreation, and Wildlife Refuge Resources

Preliminary use assessments for the park, recreation and wildlife refuge resources relative to HST alternatives are discussed in this section. All Section 4(f) properties are shown in Figures 4-2 through 4-6; however, only those properties that would incur a use, or are in close enough proximity to an alignment alternative as to incur proximity impacts (as listed in Table 4-2) are described below.

4.6.1.1 Father Wyatt Park Use Assessment

BNSF Alternative and Corcoran Elevated Alternative

Differences in impacts on Father Wyatt Park are negligible under the BNSF Alternative and the Corcoran Elevated Alternative. Thus, the following discussion applies to both alternatives.

Neither the BNSF Alternative nor the Corcoran Elevated Alternative would permanently acquire land from Father Wyatt Park and therefore neither alternative would result in a permanent use of this park. However, both alternatives would require some construction activities within 300 feet of the park, including its publicly used recreational facilities (playground, arbor, picnic tables, benches, and softball field). There would be increases in noise and dust levels that would be noticeable to park users during construction-related activities. While these impacts could potentially be considered a nuisance to park users, they would be temporary in nature. Trees located north and west of Father Wyatt Park and would shield park users from visual impacts during construction under both alternatives. Access to the park would be maintained throughout construction. Construction of these alternatives would not prevent public use of the park nor substantially impair use of the playground, arbor, picnic tables, benches, and softball field

Noise impacts related to operation of the HST under both the BNSF Alternative and Corcoran Elevated Alternative would be minimal. Portions of the park that are used for recreation are subjected to freight train noise on a daily basis, with an existing ambient noise level of 80.7 day/night average sound level (Ldn). As described in Section 3.4, Noise and Vibration, introduction of the HST at this location would only increase ambient noise levels to 81.0 Ldn, a negligible increase that would not be evident to park users. In addition, with respect to potential visual impacts during operation the existing trees to the north and west would block views of the HST from park users. Therefore, because no park property would be acquired and the noise and visual impacts from the HST would not impair the use of the park, there would be no Section 4(f) use under either alternative.

4.6.1.2 Colonel Allensworth State Historic Park/Allensworth Historic District

BNSF Alternative

Colonel Allensworth State Historic Park is congruent with the Allensworth Historic District, a district listed in the NRHP under Criterion A that would incur a direct adverse effect under the BNSF Alternative.

The BNSF Alternative would be at-grade along the eastern side of the park and would convert 1.7 acres of the 240-acre park (less than 1%). Portions of the park that would be acquired are undeveloped and currently vacant (Figure 4-7). Due to the incorporation of areas of the park into the alignment right-of-way, and the resultant direct adverse effect under Section 106, the BNSF Alternative would result in a Section 4(f) use of the park.

Construction and operation of the HST would introduce a modern transportation element within 250 feet of park areas frequented by the public and would be incompatible with the existing visual character and early-twentieth-century context of the park, which includes a visitor center, picnic area, tent and RV camping areas, several homes (including the Allensworth home), stores, a bakery, a blacksmith area, a drugstore, barber shop, post office, library, hotel, schoolhouse, a Baptist Church, restaurant, various farm buildings, and several other buildings that have been reconstructed to reflect the 1908 to 1918 historical period. The HST would be a visually dominant modern feature, noticeably contrasting with the existing visual character of the early-twentieth-century buildings in the park. The 24-foot-high overhead contact system (OCS) components and wires, right-of-way fencing, and HSTs would introduce distinctly modern industrial elements into the visual foreground that would alter the character of the site and lower visual quality (see Section 3.16, Aesthetics and Visual Resources). Section 3.16, Aesthetics and Visual Resources, contains mitigation measures that serve as measures to minimize harm against visual impacts.

Although the portions of the park that are used for recreation are subjected to freight train noise on a daily basis, the HST would create a substantial increase in noise (up to 6.3 Ldn). Noticeable vibration impacts would occur during construction; however, these would be temporary. Section 3.4, Noise and Vibration, contains mitigation measures that serve as measures to minimize harm from noise and vibration.

Colonel Allensworth State Historic Park would incur a direct Section 4(f) use under the BNSF Alternative because construction of the HST would result in physical acquisition of 1.7 acres of parkland, result in a direct adverse effect on the historic district, and would constitute a direct Section 4(f) use.

4.6.1.3 Allensworth Ecological Reserve Use Assessment

BNSF Alternative

The BNSF Alternative would incorporate approximately 7.3 acres of land within the Allensworth Ecological Reserve (Figure 4-8). The portions of Allensworth Ecological Reserve lands to the east of the alignment would be separated from construction activities by SR 43 and would not be impacted by the construction of operation of the BNSF Alternative. To the west of SR 43 however, approximately 7.3 acres of land would be permanently incorporated into the transportation facility, which would reduce the amount of habitat for special-status species in the reserve by less than 0.2%. This permanent incorporation would result in a direct Section 4(f) use of the reserve.

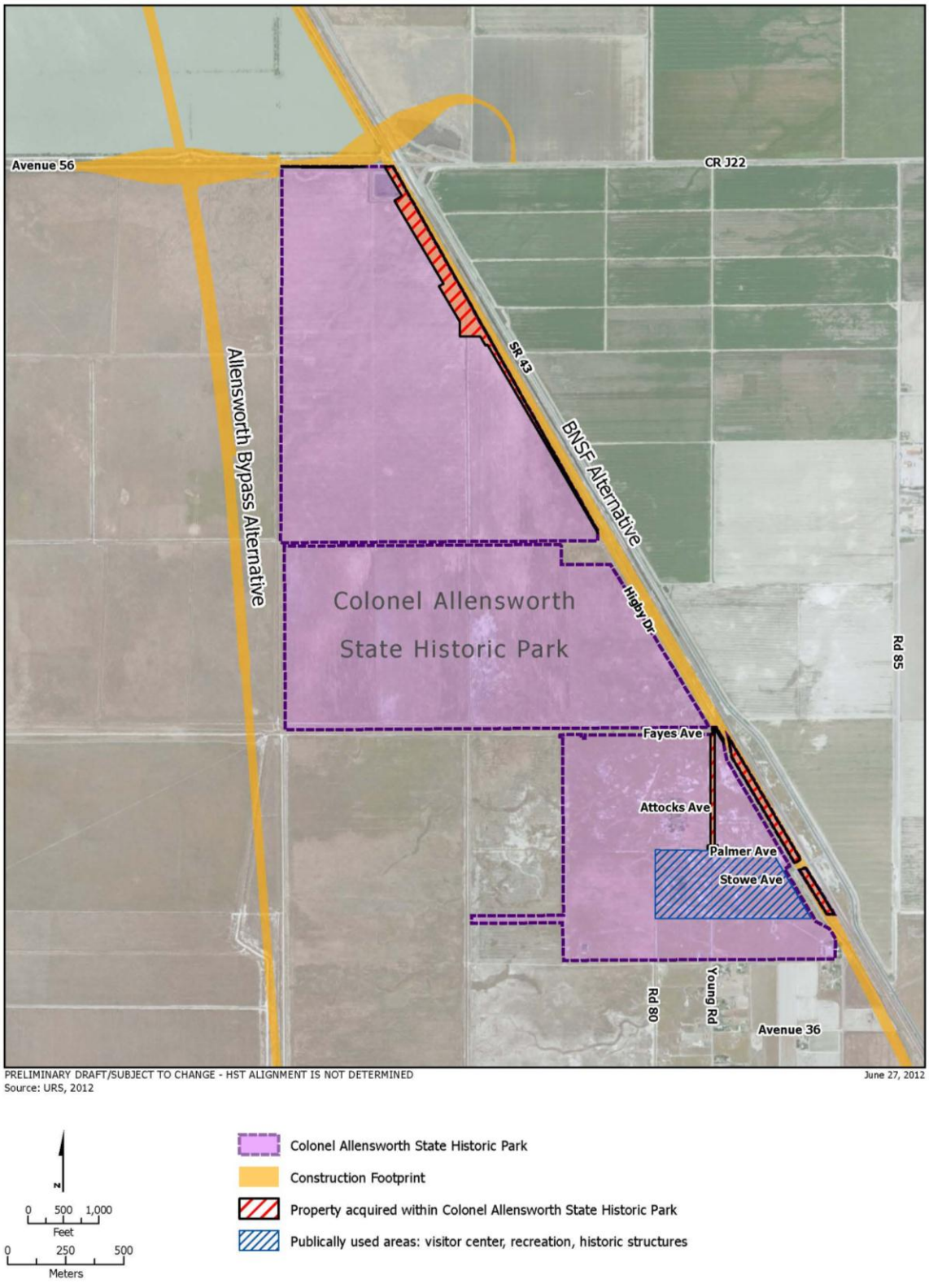

Figure 4-7
Colonel Allensworth State Historic Park

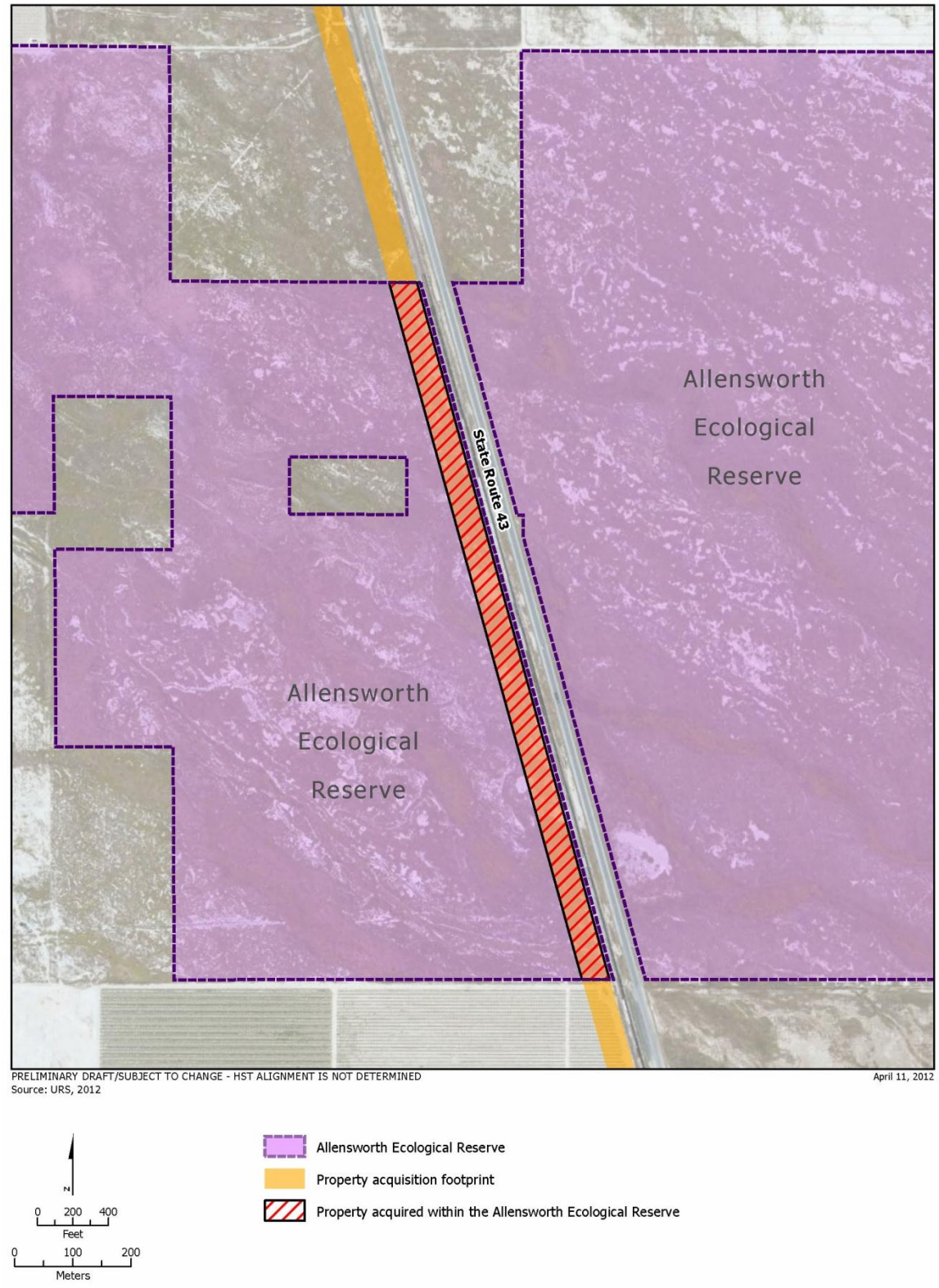

Figure 4-8
Allensworth Ecological Reserve land acquisition

The eastern areas of Allensworth Ecological Reserve that are publicly accessible for wildlife viewing do not contain any developed features and are separated from the BNSF Alternative by SR 43 and the existing BNSF railway; the HST would be consistent with the existing visual and noise environment associated with these transportation facilities. Therefore, the reserve would not experience any change in character as a result of the BNSF Alternative. Acquisition would occur directly adjacent to an existing transportation facility; it is anticipated that species within the reserve would already be conditioned to transportation-related noise. Wildlife passages have been designed through the guideway to allow wildlife movement across the BNSF Alternative alignment. Areas west of the BNSF Alternative do not offer access to Allensworth Ecological Reserve. Therefore, visitors are not anticipated in this area of the park. Given the separation of the eastern areas of the park from the BNSF Alternative by SR 43 and the BNSF Railway, and the lack of visitors to areas of the reserve west of the BNSF Alternative, there would be no proximity impacts due to operation of the HST under the BNSF Alternative.

4.6.1.4 McMurtrey Aquatic Center Use Assessment

BNSF Alternative, Bakersfield South Alternative, Bakersfield Hybrid Alternative

Differences in impacts on McMurtrey Aquatic Center are negligible under the BNSF Alternative, the Bakersfield South Alternative, and the Bakersfield Hybrid Alternative. Thus, the following discussion applies to all three alternatives.

None of the alternatives would temporarily or permanently acquire land from McMurtrey Aquatic Center, and therefore there would be no actual use as a result of implementation of any of the alternatives. Access to the facility would be maintained and would not change during either construction or operation. The BNSF, Bakersfield South, and Bakersfield Hybrid alternatives would require construction activities within 100 feet of the park, which would result in temporary increases in noise levels that could be considered a nuisance for park users. However, activities at the park (i.e., swimming and aquatic recreation) are not noise sensitive, therefore the minor increase in noise of would not substantially impair the protected activities, features or attributes of the park. In addition, construction activities would be visible from the park. However, the facility is located in an urbanized area and its main features are swimming pools which do not require complete quiet or a high-quality visual setting in order for the public's continued use and enjoy the facility. Therefore because of the urbanized area and the parks use for activities which are not dependent on visual setting or low levels of ambient noise, construction of the HST alternatives would not substantially impair the features of the resource that qualified it for protection under Section 4(f).

The introduction of the HST guideway with the BNSF Alternative, Bakersfield South, and Bakersfield Hybrid alternatives in proximity to the park would also create noise and visual impacts that do not currently exist. Existing ambient noise levels at McMurtrey Aquatic Park are 67.7 Ldn. As described in Section 3.4, Noise and Vibration, sound barriers would be employed under each alternative scenario to minimize harm to the Section 4(f) resource. With barriers, the operational noise levels at McMurtrey Aquatic Center would increase to 69-70 Ldn under each alternative scenario, a negligible increase that would not be evident to park users. Additionally, because of the nature of the facility (aquatic recreation) and its urbanized setting in Downtown Bakersfield, visual impacts would not adversely impact the park's intended use.

There would be no Section 4(f) use to McMurtrey Aquatic Park under the BNSF Alternative, the Bakersfield South Alternative, and the Bakersfield Hybrid Alternative.

4.6.1.5 Kern River Parkway Use Assessment

BNSF Alternative, Bakersfield South Alternative, Bakersfield Hybrid Alternative

Differences in impacts on Kern River Parkway are negligible under the BNSF Alternative, the Bakersfield South Alternative, and the Bakersfield Hybrid Alternative. Thus, the following discussion applies to all three alternatives.

The BNSF Alternative, the Bakersfield South Alternative, and the Bakersfield Hybrid Alternative would cross above the Kern River Parkway at a height of 65 feet in an area that contains a pathway available for bikes and pedestrians. At this location, the HST would be on an elevated structure spanning perpendicular to an undeveloped portion of the parkway. None of the project facilities would be physically placed within the parkway and therefore no actual use would to occur.

Construction of the guideway would require temporary closure of the bike path for safety purposes when construction takes place over the path. However by applying the analysis described in Section 4.1.2.2 above, the temporary closure of the bike path at the parkway under each of the alignment alternatives would not constitute a Section 4(f) use for the following reasons:

- The bike path will not be closed during the entire construction period, and no physical impacts on the bike path itself will occur.
- No physical changes would occur to the resource: after construction of this section of the guideway, the bike path would be reopened for use.
- There would be no permanent adverse physical impacts or interference with use of the resource. The Authority and FRA would coordinate with City of Bakersfield prior to project construction to develop an alternate route for bike path users during the temporary closure. Areas in proximity to construction would be closed; therefore there would be no noise and visual impacts resulting from project construction. .
- The bike path would be restored to the condition it was in before project construction.
- The FRA would coordinate with the City of Bakersfield on a documented agreement regarding the foregoing requirements prior to project construction.

After construction of this section of the guideway, these facilities would be reopened for use. The FRA will coordinate with the City of Bakersfield before project construction to develop an alternate route for pedestrian path users.

Introduction of the HST guideway above the parkway would create a permanent intrusive visual element that did not previously exist. Previous views of open sky and distant mountains would be obscured by a dominant transportation element. The addition of the HST to the landscape would result in noticeable visual impacts on users of the parkway in the immediate vicinity of the alignment. Measures to minimize harm, as described in Section 3.16, Aesthetics and Visual Resources (see measures AVR-MM#2a-AVR-MM#2f), will be employed to reduce these impacts to a level that would not substantially impair the attributes that qualify the facility for protection under Section 4(f).

Noise impacts due to operation of the HST would result in a moderate increase in noise levels (varying from an additional 1.5 Ldn to 4.5 Ldn). While evident, this is not a substantial enough increase to substantially impair the attributes that qualify the facility for protection under Section 4(f).

The Authority and FRA will coordinate with the City of Bakersfield and request a documented agreement that the project would not result in impacts that would substantially impair the attributes of this resource that qualify it for protection. Therefore, there would be no Section 4(f) use of the property.

The BNSF Alternative, the Bakersfield South Alternative, and the Bakersfield Hybrid Alternative would each result in a temporary occupancy of the Kern River Parkway.

4.6.1.6 Mill Creek Linear Park Use Assessment

BNSF Alternative, Bakersfield South Alternative, Bakersfield Hybrid Alternative

Impacts on Mill Creek Linear Park are similar under the BNSF Alternative, the Bakersfield South Alternative, and the Bakersfield Hybrid Alternative. Thus, the following discussion applies to all three alternatives.

The BNSF Alternative, the Bakersfield South Alternative, and the Bakersfield Hybrid Alternative would cross above areas of Mill Creek Linear Park used by pedestrians. The guideway would cross perpendicularly on an elevated structure above the parkway. None of the project facilities would be physically placed in the park, and therefore there would be no actual use as a result of implementation of any of the alternatives.

Construction of the guideway would require temporary closure of pedestrian facilities for safety purposes when construction takes place over the park. However by applying the analysis described in Section 4.1.2.2 above, the temporary closure of the pedestrian facilities at the park under each of the alignment alternatives would not constitute a 4(f) use for the following reasons:

- The pathway will not be closed during the entire construction period, and no physical impacts on the bike path itself will result.
- No physical changes would occur to the resource: after construction of this section of the guideway, the pathway would be reopened for use
- There would be no permanent adverse physical impacts or interference with use of the resource. The Authority and FRA would coordinate with City of Bakersfield prior to project construction to develop an alternate route for pathway users during the temporary closure. Areas in proximity to construction would be closed; therefore there would be no noise and visual impacts resulting from project construction.
- The pathway would be restored to the condition it was in before project construction.
- FRA would coordinate with the City of Bakersfield on a documented agreement regarding the foregoing requirements prior to project construction.

Introduction of the HST guideway above the park would introduce a visual transportation element that did not previously exist. The park is currently in an urban setting with various existing transportation features; it is crossed at-grade by numerous streets and pedestrian crossings, and the existing BNSF right-of-way is in the vicinity of the park. Therefore, while the introduction of the HST guideway would create noticeable effects on park users due to the introduction of additional transportation features, it would be consistent with the existing urban setting of the parkway. Impacts are not expected to be so severe as to substantially impair the attributes that qualify the resource for protection under Section 4(f); the park would continue to be a useable facility for pedestrians seeking recreation. Additionally, measures to minimize harm, as described in Table 4-5, would be employed to reduce these impacts. The Authority and FRA

will coordinate with the City of Bakersfield and request a documented agreement that the project will not result in impacts that would substantially impair the attributes of this resource that qualify it for protection under Section 4(f).

The BNSF Alternative, the Bakersfield South Alternative, and the Bakersfield Hybrid Alternative would all result in a temporary occupancy of the Mill Creek Linear Park.

4.6.2 Cultural Resources

Section 106 of the NHPA requires federal agencies to consider a project's effect on cultural resources in much the same way as Section 4(f). The most important connection between the two statutes is that the Section 106 process is the method by which a cultural resource's significance and any resulting protections are determined under Section 4(f).

The results of the Section 106 process determine whether Section 4(f) applies to historic properties. The results of the Section 106 analysis are critical in determining the applicability and outcome of the Section 4(f) evaluation. The most important difference between the two statutes is the way each of them measures impacts on cultural resources. Whereas Section 106 is concerned with "adverse effects," Section 4(f) is concerned with "use" of protected properties. An adverse effect does not necessarily result in a Section 4(f) use unless the effect substantially impairs the attributes and features that qualify the resource for protection under Section 4(f).

4.6.2.1 Historic Resources

Preliminary 4(f) Use Determinations at Historic Sites with Direct Adverse Effects under Section 106

Based on the analysis conducted for cultural and paleontological resources (see Section 3.17), the following NRHP-listed or eligible historic sites would be directly adversely affected under Section 106 by one or more HST alternatives. These properties have been preliminarily determined to incur Section 4(f) uses because these sites would be permanently incorporated into the HST right-of-way.

Washington Irrigated Colony Historic Rural Landscape (Rural Fresno County)

BNSF Alternative

Use of the Washington Irrigated Colony Historic Rural Landscape would occur under the BNSF Alternative as a result of effects to properties that contribute to the district, which includes the Washington Colony Canal and the North Branch of the Oleander Canal, as discussed further below.

- Washington Colony Canal (Rural Fresno County). The BNSF Alternative would cross this canal at-grade. This would result in the placement of culvert crossings within the physical boundary of the historic property, permanently converting land into a transportation feature and therefore resulting in a Section 4(f) use. Impacts would be limited to the portion of the canal crossed by the BNSF Alternative and would not extend to other historic portions of the canal.

- North Branch of the Oleander Canal (Rural Fresno County). The BNSF Alternative would cross this canal at-grade. This would result in the placement of culvert crossings within the physical boundary of the historic property, converting land into a transportation feature and therefore resulting in a Section 4(f) use. Impacts would be limited to the portion of the canal crossed by the BNSF Alternative and would not extend to other historic portions of the canal.

People's Ditch (Rural Kings County)

BNSF Alternative

The HST alignment under the BNSF Alternative would cross this canal at-grade and would require culvert installation and relocation of up to 1,000 feet of a segment of this ditch. This would result in the placement of project components within the physical boundary of the historic property, resulting in a Section 4(f) use. These effects would be limited to the specific segments of the canal subject to construction and would not extend to other historically significant segments of the canal.

Last Chance Ditch (Kings County)

Hanford West Bypass 1 and 2 Alternatives

The Hanford West Bypass 1 and 2 at-grade alternatives would require relocation of up to a mile of the Last Chance Ditch irrigation canal. Other project activities that would materially alter this property include construction of roadway structures that would require installation of culverts and other alterations of the canal. These activities would result in the placement of project features within the boundary of this historic property, which is a Section 4(f) use. These effects would be limited to the specific segments of the canal subject to construction and would not extend to other historically significant segments of the canal.

13148 Grangeville Boulevard (Kings County)

Hanford West Bypass 1 and 2 Alternatives

The residence at 13148 Grangeville Boulevard is in the construction footprint of the Grangeville Boulevard roadway structure, an element of the Hanford West Bypass 1 and 2 (at-grade and below-grade) alternatives. The residence and attached tank house would be demolished and the boundaries of the historic property would be bisected by the construction of roadway structures under these alternatives resulting in the physical destruction of this historic property. These project activities would constitute a Section 4(f) use.

9860 13th Avenue (Kings County)

Hanford West Bypass 1 and 2 Alternatives

The farmstead at 9860 13th Avenue is in the construction footprint of the Hanford West Bypass 1 and 2 (at-grade and below-grade) alternatives. The residence, tank house, and outbuilding would be demolished and the parcel boundaries bisected by the construction of any of the Hanford West Bypass alternatives. Construction would result in the physical destruction of this historic property, and would constitute a Section 4(f) use.

11029 Kent Avenue (Kings County)

Hanford West Bypass 1 Alternative

The farmstead at 111029 Kent Avenue is in the construction footprint of the Hanford West Bypass 1 (at-grade and below-grade) alternative. It is also within the construction footprint of the Kent Avenue roadway structure, an element of the Hanford West Bypass 1 (at-grade and below-grade) alternatives. Construction would result in the demolition of some or all of the buildings of the farmstead and bisect the farmstead complex. These alternatives would also indirectly affect any remaining contributing elements of the farmstead due to visual impacts related to the installation of radio communications towers between 240 and 380 feet away. These project activities would constitute a Section 4(f) use.

Allensworth Historic District (4129 Grant Drive, Tulare County).

BNSF Alternative

The Allensworth Historic District exists in the same location as Colonel Allensworth State Park. The Section 4(f) use from permanent incorporation of this property as a result of the BNSF Alternative is discussed above in Section 4.6.1.2.

Friant-Kern Canal (Rural Kern County)

BNSF Alternative, Bakersfield South Alternative, and Bakersfield Hybrid Alternative

Differences in impacts on the Friant-Kern Canal are negligible under the BNSF Alternative, the Bakersfield South Alternative, and the Bakersfield Hybrid Alternative. Thus, the following discussion applies to all three alternatives.

Construction of the BNSF, Bakersfield South, or Bakersfield Hybrid Alternatives would require relocation of a pipeline and construction of a bridge, activities that would physically alter the Friant-Kern Canal, a major water conveyance feature that runs along the eastern San Joaquin Valley. Construction of these features would diminish the integrity of the canal and materially alter the canal structure. The effects would be limited to the specific segments of the canal subject to construction and would not extend to other historically significant segments of the canal. These project activities would result in a Section 4(f) use.

2509 East California Avenue (Bakersfield)

Bakersfield South Alternative

This property is within the alignment of the Bakersfield South Alternative. Implementation of this alternative would result in the physical destruction of this resource and would constitute a Section 4(f) use.

Preliminary 4(f) Use Determinations at Historic Sites with Indirect Adverse Effects under Section 106 of the NHPA

One or more of the project alternatives may have indirect adverse effects on the historic properties listed below. Section 4(f) use determinations are based on analyzing the potential proximity impacts on the properties, taking into account the activities, features or attributes that qualify the property for protection under Section 4(f). An indirect adverse effect does not in and of itself constitute a Section 4(f) use.

Southern Pacific Railroad Depot (1033 H Street, Fresno)

BNSF Alternative

No HST alternative would result in a direct Section 4(f) use of property from the NRHP-listed Southern Pacific Railroad Depot site. However, based on analysis completed for Cultural and Paleontological Resources (see Section 3.17), the BNSF Alternative would result in a Section 106 indirect adverse effect on the Southern Pacific Railroad Depot because the new station would change the character of the Depot's use. The property's setting, feeling, and association, which contribute to its historic significance, and the operation of the new station would introduce a visual impact that reduces the integrity of the property's historic features and historic use.

The BNSF Alternative would include construction of a Tulare Street overcrossing adjacent to the southern side of the Southern Pacific Railroad Depot in Fresno. The size, scale, and mass of this elevated structure would introduce a visual element that would diminish the visual setting and

therefore the historic integrity of the depot. While the new transportation features would be visible within the viewshed of the property, they would not detract from the historic depot's architectural style. Therefore, the BNSF Alternative would not result in a substantial impairment of the attributes that qualify this resource for protection under Section 4(f). Therefore, the preliminary assessment is that it would not constitute a Section 4(f) use.

In addition, the Southern Pacific Railroad Depot is within the APE for the Fresno Station–Mariposa, and Fresno Station–Kern station options. Neither of these station alternatives would result in adverse effects on the depot under Section 106, and proximity impacts from station construction and operation are not anticipated to result in a constructive use of this property.

Bank of America (947–951 F Street, Fresno)

BNSF Alternative

The BNSF Alternative includes the introduction of a raised structure within 15 feet of the Bank of America building and would diminish its historic design by altering its relationship to the formerly at-grade storefronts on a prominent corner lot; would diminish its setting, and would diminish the prominent commercial facades on its northeast, northwest, and southwest sides.

The Bank of America building qualifies for protection under Section 4(f) as the first Japanese-owned lending institution in Fresno and as a local example of Spanish Mission Revival style architecture. While its setting would be diminished and would result in an indirect adverse effect under Section 106, its association with the historic Japanese community in Fresno would not change. Further, its location, design, materials, and workmanship as Spanish Revival Style building would not change. Thus, the preliminary determination is that this would not result in a substantial impairment to the features that qualify the resource for protection under Section 4(f) and would not result in a constructive use of this property.

The BNSF Alternative also includes an option for an undercrossing at Tulare Street, which would result in no adverse effect to under Section 106. If an undercrossing at Tulare Street were implemented, the preliminary determination is that there would be no actual or constructive Section 4(f) use of this property.

South Van Ness Entrance Gate (2208 South Van Ness Avenue, Fresno)

BNSF Alternative

The BNSF Alternative would cause an indirect adverse effect under Section 106 to the South Van Ness Entrance Gate, through the permanent closure of local roadways. The closure of South Railroad Avenue and the portion of South Van Ness that that intersects that street would alter the function of the gate as an entrance marker for vehicles entering Fresno. This change would diminish the property's historic design, location, feeling, association, and setting.

The South Van Ness Entrance Gate qualifies for protection under Section 4(f) due to its association with early 20th century transportation and as an example as an early 20th century roadway sign. While its historic function was as a gateway into the City of Fresno in the early 20th century, the area now has limited use as a gateway: modern thoroughfares into the city are primarily SR 99, SR 41, and Golden State Boulevard. Additionally, the sign would not be materially altered and would retain its design and workmanship as an early 20th century roadway sign. Therefore, while the BNSF Alternative would result in an indirect adverse effect under Section 106, the preliminary determination is that features that qualify the sign for protection would not be substantially impaired and would not result in a Section 4(f) use.

7887 South Maple Avenue (Rural Fresno County)

BNSF Alternative

The BNSF Alternative would introduce a roadway overcrossing at E. South Avenue, introducing a visual feature that is not consistent with the rural historic landscape setting. The existing rural, at-grade road would be replaced by an elevated structure within about 250 feet of this historic residence, which would alter the immediate surroundings of the Property.

7887 South Maple Avenue qualifies for protection under Section 4(f) because of its association with the founding and settlement of the Washington Irrigated Colony Historic Rural Landscape and because it is a good example of rural Folk Victorian architecture. Introduction of the HST under the BNSF Alternative would diminish elements of the setting of the historic property and would result in an indirect adverse effect under Section 106. However, its location and association in respect to the Washington Irrigated Colony Historic Rural Landscape, as well as the design, materials, and workmanship associated with its rural Folk Victorian architecture would remain intact. Thus, the preliminary assessment is that the BNSF Alternative would not substantially impair the features that qualify the property for protection under Section 4(f) and would therefore not constitute a Section 4(f) use.

Lakeside Cemetery (Kent Avenue, Rural Kings County)

BNSF Alternative

The BNSF Alternative includes the construction of an at-grade rail line, a communications tower, and a grade separation and overcrossing for Kent Avenue adjacent to the Lakeside Cemetery. The at-grade rail line and overcrossing constitute the introduction of two large-scale structures adjacent to the southern boundary of the cemetery, where no such features currently exist.

The attribute that qualifies the cemetery for protection under Section 4(f) is its establishment as the first cemetery in the region serving pioneer families. The introduction of new transportation features would result in visual impacts altering the feeling and setting of the property and result in an indirect adverse effect under Section 106. However, the alternative would not result in relocation or disturbance to the cemetery. Its context—associated with the first cemetery serving pioneer families in the region—would remain evident, and therefore the alternative would not result in a substantial impairment to the attributes that qualify the cemetery for protection under Section 4(f). Therefore, the preliminary assessment is that BNSF Alternative would not constitute a Section 4(f) use of this property.

Santa Fe Depot (150–200 Central Valley Highway, Shafter)

BNSF Alternative

The BNSF Alternative includes construction of an elevated structure up to 45 feet high next to the existing at-grade BNSF railroad. The Santa Fe Freight Depot would be approximately 200 feet from the elevated track structures. The depot was originally constructed to serve Shafter as part of a nineteenth-century, at-grade railroad system, and historically served warehouse and shipping facilities that were 1 to 2 stories in height. The BNSF Alternative would introduce an elevated rail line that is the equivalent height of a 4 or 5 story building about 200 feet east of the historic depot, extending north and south from view of the depot. The size, scale, and massing of the elevated rail structure would not be consistent with the historic design, setting, and feeling of the depot building, and would diminish the historic integrity of the historic property.

The Santa Fe Depot qualifies for protection under Section 4(f) because it is a good example of a standard combination frame depot. While the introduction of the HST would result in an indirect

adverse effect under Section 106, the location, materials, and workmanship associated with its existence as a standard combination frame depot would remain unchanged. Furthermore, the HST is an additional railroad facility that while modern, is consistent with the transportation corridor setting. Thus, the attributes that qualify the property for protection under Section 4(f) would not be substantially impaired. The preliminary assessment is that the BNSF Alternative would not result in a Section 4(f) use to this property.

San Francisco and San Joaquin Valley Railroad Section House (434 Central Valley Highway, Shafter)

BNSF Alternative

The BNSF Alternative includes construction of an elevated structure (up to 45 feet high) next to the existing at-grade BNSF railroad approximately 210 feet east of this historic section house. The alternative would introduce an elevated rail line that is the equivalent height of a 4 or 5 story building and extend north and south from view of the section house. The size, scale, and massing of such a structure is not consistent with the historic design, setting, and feeling of the building, and would diminish the historic integrity of the historic property.

The San Francisco and San Joaquin Valley Railroad Section House qualifies for protection under Section 4(f) due to its association with the founding of Shafter and as an example of a section house built by the San Francisco and San Joaquin Valley Railway Company. While the property would incur an indirect adverse effect under section 106, it would remain as being recognizable for its location and association with the founding of Shafter, and would retain the design, materials, and workmanship associated with being an example of a section house. Thus, the attributes that qualify the property for protection under Section 4(f) would not be substantially impaired. The preliminary assessment is that the BNSF Alternative would not result in a Section 4(f) use to the property.

Harvey Auditorium, Bakersfield High School (1241 G Street, Bakersfield)

BNSF Alternative

The BNSF Alternative includes construction of an elevated rail line between 50 and 70 feet in height approximately 125 feet from Harvey Auditorium. The elevated structure would be constructed adjacent to an existing at-grade railroad in an area that historically consisted of a mixture of institutional and education-related buildings. The construction of the BNSF Alternative would have an indirect adverse effect under Section 106 because it would alter the setting of the auditorium through the demolition of buildings just north, northeast, and northwest of the auditorium, which would diminish the integrity of its setting, association, and feeling. The construction of the BNSF Alternative would also have an indirect adverse effect through the introduction of a large-scale (50 to 70 feet tall), elevated rail line across the street from the auditorium. This construction diminishes the historic design, setting, association, and feeling of this building, and would diminish its historic integrity.

Harvey Auditorium qualifies for protection under Section 4(f) due to its association with local master architect Charles Biggar. While the property would incur an indirect adverse effect under Section 106 for the reasons listed above, the building would remain recognizable as having the design and workmanship of local master architect Charles Biggar. Thus, the attributes that qualify the property for protection under Section 4(f) would not be substantially impaired. The preliminary assessment is that the BNSF Alternative would not result in a Section 4(f) use to the property.

Summary of Preliminary Section 4(f) Use Determinations of Historic Properties

A summary of Section 4(f) uses of NRHP-listed or eligible historic properties is provided in Table 4-4. Alternatives are compared against other alternatives in locations where they parallel each other. All historic property preliminary determinations of use shown are direct Section 4(f) uses as a result of property acquisition.

Table 4-4
Summary of Section 4(f) Uses of NRHP-Listed or Eligible Properties

Alternative	Number of Historic Property Uses	Historic Property Uses
BNSF (areas with no corresponding alternative)	2	• Washington Colony Canal • North Branch of Oleander Canal
BNSF	1	• People's Ditch
Hanford West Bypass 1	4	• Last Chance Ditch • 13148 Grangeville Blvd • 9860 13th Ave • 11029 Kent Ave
Hanford West Bypass 2	3	• Last Chance Ditch • 13148 Grangeville Blvd • 9860 13th Ave
BNSF	0	N/A
Corcoran Bypass	0	N/A
Corcoran Elevated	0	N/A
BNSF	1	• Allensworth Historic District
Allensworth Bypass	0	N/A
BNSF	0	N/A
Wasco-Shafter Bypass	0	N/A
BNSF	1	• Friant-Kern Canal
Bakersfield Hybrid	1	• Friant-Kern Canal
Bakersfield South	2	• Friant-Kern Canal • 2509 E. California Ave
N/A = not applicable NRHP = National Register of Historic Places		

4.7 Avoidance Alternatives

Section 4(f) requires the selection of an alternative that avoids the use of Section 4(f) property if that alternative is deemed feasible and prudent. The purpose and need statement of the HST Fresno to Bakersfield Section EIR/EIS tiers off the approved program EIR/EIS documents. The alternatives evaluation process conducted as part of the HST Project for the Fresno to Bakersfield Section concluded that there was no feasible and prudent HST alternative within the study area that did not result in a use of a Section 4(f) resource. Although the alternatives analysis process considered multiple criteria, the screening emphasized the project objective to maximize the use of existing transportation corridors and available rights-of-way, to the extent feasible; the result of this was the carrying forward of the north-south alignment alternatives that follow the existing freight corridor of the BNSF. The alternatives evaluation process resulted in the conclusion that, in accordance with 49 U.S.C. 303(c), there was no feasible and prudent HST alternative within the study area that, based on multiple factors that are individually not severe, would cumulatively result in conditions rendering the alternative not prudent.

The reason for this finding is as follows:

- All HST alternatives were designed to follow existing railroad corridors to the extent allowed by design speeds. Locating the HST alignment along these corridors is an objective of the project intended to minimize impacts on the natural and human environment. Any alternative that did not follow these or other transportation corridors would substantially increase the number of displacements, overall community disruption, adverse impacts on natural environment resources, and adverse social and economic impacts.

- Any alternative that did not follow these or other transportation corridors would not meet the purpose and need of the Fresno to Bakersfield HST Project because such an alternative would fail to link the major metropolitan areas of the state, deliver predictable and consistent travel times, and relieve capacity constraints of the existing transportation system as increases in intercity travel demand in California occur, in a manner sensitive to and protective of California's unique natural resources:

  - Scoping comments brought up alternatives that were already considered in the 2005 Final Statewide Program EIR/EIS, such as the Sierra Foothills (located 8 miles east of SR 99) and an alignment along the I-5 corridor. The Sierra Foothills Alternative was already eliminated in the Program EIR/EIS due to lack of connectivity with urban centers, inability to generate adequate revenue, and high environmental impacts.

  - The potential for an I-5 alignment was considered and rejected for further study in decisions by the Authority and the FRA in the 2005 Final Statewide Program EIR/EIS. While the I-5 corridor could possibly provide better end-to-end travel times compared with alignment alternatives that generally follow the rail corridors or the SR 99 corridor, it would not meet project objectives and would not satisfy the project's purpose and need as well as the BNSF/UPRR/SR 99 corridors would. Because it is not where the bulk of the Central Valley population resides, the I-5 corridor would result in lower ridership and would not meet the current and future intercity travel demand generated by the Central Valley communities. The I-5 corridor would not provide transit connections in this area, and thus would not meet the purpose and need and basic objectives of maximizing intermodal transportation opportunities and improving the intercity travel experience in the Central Valley area of California. Use of the I-5 corridor would also encourage sprawl development, which is the opposite of what the HST System is intended to achieve, and which was opposed by numerous agencies, including EPA.

- In contrast to the lower population along the I-5 corridor, almost 5 million residents are projected to live between Merced and Bakersfield along the BNSF/UPRR/SR 99 corridors by 2035. Residents along the BNSF/UPRR/SR 99 corridors lack a competitive transportation alternative to the automobile, and the detailed ridership analysis showed that they would be ideal candidates to use an HST System (Authority and FRA 2010b). In addition, the I-5 corridor would not be compatible with current land use planning in the Central Valley, which focuses and accommodates growth in the communities along the BNSF/UPRR/SR 99 corridors. The concept of linking the I-5 corridor to Fresno and Bakersfield with spur lines was also considered at the program level, but dismissed because it would add considerably to the I-5 corridor capital costs and would still have the same lower ridership figures when compared to the SR 99 corridor.

The potential to slightly modify the alignment of the Hanford West Bypass 1 and 2 alternatives (referred to below as the Hanford West Avoidance Alternative and shown in Figures 4-9 and 4-10) by moving it approximately 500 feet to the west was evaluated. This modification has been preliminarily determined to be a feasible and prudent avoidance alternative to using some Section 4(f) resources. The implications of this modification are evaluated in this section with respect to relevant Section 4(f) resources discussed below (Sections 4.7.1.5 through 4.7.1.8).

The No Project Alternative would not include the construction of the HST or any associated facilities, and would thus have no impact on any Section 4(f) or Section 6(f) resources. However, it would not address the state's purpose and need for the project. This alternative is insufficient to meet existing and future travel demand; current and projected future congestion of the transportation system would continue to result in deteriorating air quality, reduced reliability, and increased travel times. Because the No Project Alternative does not meet the project purpose and need, it is neither feasible nor prudent, and is not discussed further as an avoidance alternative for any Section 4(f) or Section 6(f) resources.

Greater detail on alternatives considered but dismissed is provided in Section 2.3, as well as in the *Fresno to Bakersfield Preliminary Alternatives Analysis Report* (Authority and FRA 2010a), the *Fresno to Bakersfield Supplemental Alternatives Analysis Report* (Authority and FRA 2010b), and the *Fresno to Bakersfield Section: Checkpoint B Summary Report* and attachments (Authority and FRA 2011b), available at www.cahighspeedrail.ca.gov.

4.7.1 Preliminary Individual Resource Avoidance Assessments

4.7.1.1 Colonel Allensworth State Historic Park/Allensworth Historic District

Colonel Allensworth State Historic Park (which is congruent with the Allensworth Historic District) could be avoided by selecting the Allensworth Bypass Alternative. This alignment would avoid the park boundary by 450 feet on the southeastern boundary. The rail line would be constructed at-grade, as previously described, and would be located approximately 1 mile from any publicly used facilities. The HST would be located at sufficient distance from the park that it would not create any visual intrusion (see Section 3.16, Aesthetics and Visual Resources). Noise levels and vibration would be reduced by attenuation due to the distance of the Allensworth Bypass from the park (see Section 3.4, Noise and Vibration). The preliminary determination is that the Allensworth Bypass Alternative would not result in a Section 4(f) use of the park or district.

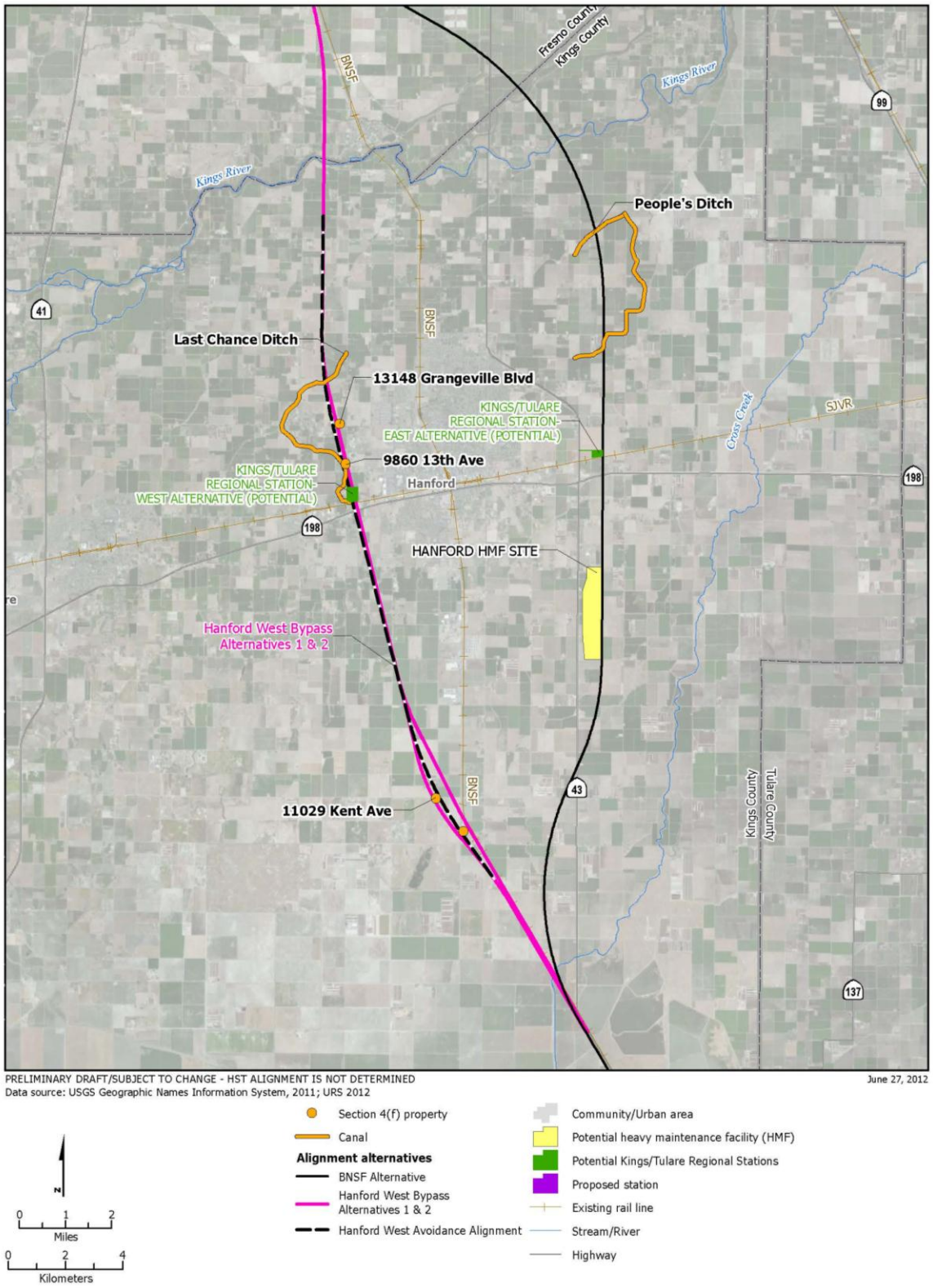

Figure 4-9
Hanford area: Hanford West Avoidance Alternative overview

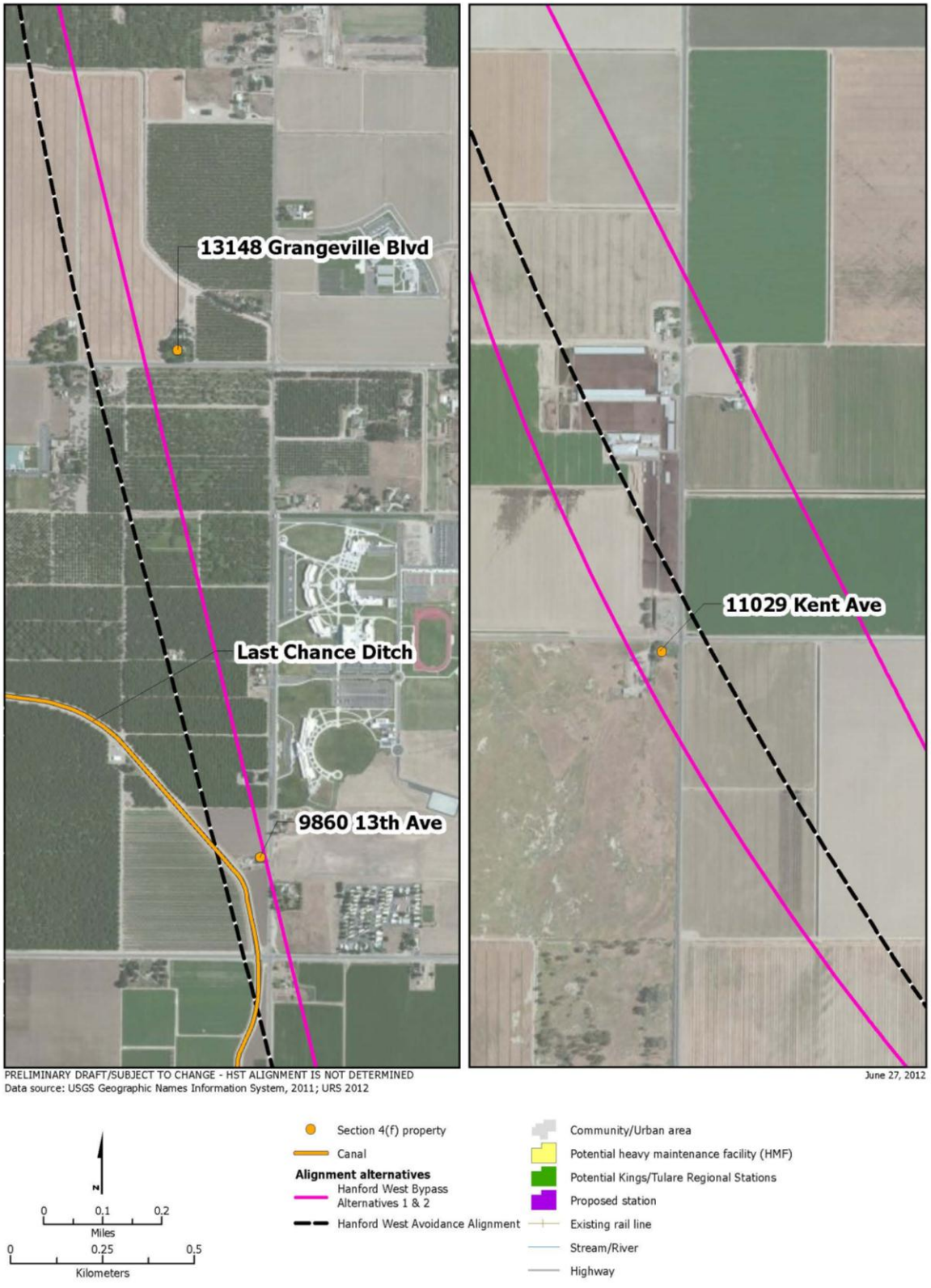

Figure 4-10
Hanford area: Hanford West Avoidance Alternative details

4.7.1.2 Allensworth Ecological Reserve

The Allensworth Bypass Alternative would avoid all portions of the reserve by approximately 2 miles, a sufficient distance to attenuate any potential noise or visual impacts. The Allensworth Bypass Alternative is a feasible and prudent avoidance alternative to the Section 4(f) use that would occur as a result of the BNSF Alternative.

4.7.1.3 Washington Irrigated Colony Historic Rural Landscape, Washington Colony Canal and North Branch of Oleander Canal

The Washington Irrigated Colony Historic Rural Landscape contains two contributing features that would be used by the BNSF Alternative: the Washington Colony Canal and the North Branch of the Oleander Canal, which are oriented generally east-west across the study area between SR 41 on the west and SR 99 on the east. As the Fresno to Bakersfield Section travels north-south, to avoid these resources it would be necessary to reroute the alignment at least 2 miles away from the BNSF Railway tracks to the east or west to avoid these canals. Because the curve radius for the proposed HST varies from approximately 4 to 6.5 miles, it would be necessary to reroute at least 6 miles of the alignment, resulting in higher construction and right-of-way costs and increased travel times. This rerouting would take place across an area of intensive farming, resulting in severe disruption of existing farm operations.

The HST alignment would permanently incorporate portions of these linear historic properties. However, the alignment would not require a complete demolition of the canals as a whole. With implementation of the measures to minimize harm discussed in Section 4.8, the alignment would not compromise the rural landscape's overall NRHP-eligibility and would not compromise the NRHP-eligibility of the canals. Therefore, the preliminary assessment is that the BNSF Alternative would result in a Section 4(f) use of the Washington Irrigated Colony Historic Rural Landscape and its two contributing features, the Washington Colony Canal and the North Branch of the Oleander Canal; there is no feasible and prudent avoidance alternative to such use.

4.7.1.4 People's Ditch

As described in Section 4.6.2, the BNSF Alternative would result in an actual Section 4(f) use of the People's Ditch, which is oriented generally east to west in areas where it crosses the BNSF Alternative. The curve radius for the proposed HST varies from approximately 4 to 6.5 miles; to avoid this property it would be necessary to reroute at least 6 miles of the alignment, resulting in higher construction and right-of-way costs, and increased travel times. The rerouting would take place across an area of intensive farming, resulting in severe disruption of existing farm operations. As proposed, the BNSF Alternative would permanently incorporate portions of this linear historic property resulting in a direct Section 4(f) use. However, the alignment would not require a complete demolition of the People's Ditch as a whole, and with implementation of the measures to minimize harm discussed in Section 4.8, would not compromise its overall NRHP-eligibility.

The People's Ditch could be avoided by selecting the Hanford West Bypass 1 and Bypass 2 alternatives in the locations where they are parallel to the BNSF Alternative. The preliminary assessment is that there would be no Section 4(f) use of the People's Ditch under these alternatives.

4.7.1.5 13148 Grangeville Boulevard

As described in Section 4.6.2, the Hanford West Bypass 1 and 2 alternatives would result in a Section 4(f) use of 13148 Grangeville Boulevard. A Hanford West Avoidance Alternative would place the rail line approximately 600 feet west of the property and although it would be visible, the rail line itself would not diminish its historic integrity of this resource. However, the avoidance

alternative would require construction on an underpass structure on Grangeville Boulevard adjacent to the property, and may include construction of a retaining wall to separate the property from the underpass structure. The below-grade underpass structure would be immediately adjacent to the farmstead and would introduce a visual feature that would diminish the integrity of the property.

The property at 13148 Grangeville Boulevard qualifies for protection under Section 4(f) as an important example of a Four Square design and as an example of an intact early-twentieth-century farmstead. While the property would incur an indirect adverse effect as a result of the Hanford West Avoidance Alternative (see Figures 4-9 and 4-10), it would still retain the materials, design, and workmanship associated with its current Four Square design. Thus the attributes that qualify the property for protection under Section 4(f) would not be substantially impaired and a Section 4(f) use could be avoided. Use of 13148 Grangeville Boulevard could also be avoided by selecting the BNSF Alternative in the Hanford area.

4.7.1.6 Last Chance Ditch

The Last Chance Ditch is an irrigation canal that would be relocated at two points under the Hanford West Bypass 1 and 2 alternatives: at the canal crossing of Fargo Avenue and west of 13th Avenue, north and south of W. Lacey Avenue. Relocation of the canal as part of the Bypass 1 and 2 (both at-grade and below-grade) alternatives near Fargo Avenue would result in the material alteration of this historic property, which is a direct adverse effect under Section 106. Relocation of the canal in the vicinity of W. Lacey Avenue as part of the Hanford West Bypass 1 and 2 alternatives (at-grade only) would result in the material alteration of this historic property, which is a direct adverse effect. Other project activities that would materially alter this property include construction of roadway structures that would require installation of culverts and other alterations of the canal, relocation of a freight rail line, and construction of project features such as communications and power facilities. These project activities would diminish the historic integrity of the canal at these locations, but would not affect other segments of the canal that may be historic. Under the below-grade options for both Hanford West Bypass 1 and Bypass 2 alternatives, the historic property would be materially altered through the construction of roadway structures. These project actions would be a direct adverse effect Section 106, and would constitute a Section 4(f) use.

The Hanford West Avoidance Alternative would place the alignment approximately 600 feet west of the Hanford West 1 and 2 Bypass Alternatives (see Figures 4-9 and 4-10). However, because the canal is a linear feature, the east to west portions of the canal would still be bisected by the Hanford West Avoidance Alternative, and the impacts on the canal would be the same as under the Hanford West Bypass 1 and Bypass 2 alternatives and would still result in a Section 4(f) use.

Last Chance Ditch could be avoided by selecting the BNSF Alternative in the Hanford area. By selecting the BNSF Alternative at this location, there would be no Section 4(f) use of this property.

4.7.1.7 9860 13th Avenue

As described in Section 4.6.2, the Hanford West Bypass 1 and 2 alternatives would result in a Section 4(f) use of 9860 13th Avenue. The Hanford West Avoidance Alternative would move the alignment approximately 500 feet west, resulting in the rail line being placed within the northwest corner of the parcel on which this property lies (see Figures 4-9 and 4-10).

The property at 9860 13th Avenue qualifies for protection under Section 4(f) as a historic property that is a good local example of Folk Victorian architecture. The Hanford West Avoidance Alternative would place the HST within the parcel boundary, but it would not result in the acquisition or demolition of the structures, or otherwise affect their physical integrity. Thus, no

direct adverse effect under Section 106 would occur, and a Section 4(f) direct use would be avoided. However, the introduction of this new visual feature would diminish the integrity of setting and property boundary.

As noted above, the Hanford West Avoidance Alternative would require the relocation of Last Chance Ditch, which forms the western boundary of the farmstead. The Hanford West Avoidance Alternative also includes construction of an interlocking site and an underpass at W. Lacey Boulevard, as well as the relocation of 13th Avenue—project activities that would take place south of and outside the property boundaries. Thus, a Section 106 indirect adverse effect would occur due to the change in visual setting to the property. However, the design, materials, and workmanship of the property would remain intact. Therefore the Hanford West Avoidance Alternative would not substantially impair the attributes that qualify this property for protection under Section 4(f) and would avoid a use of 9860 13th Avenue.

The property at 9860 13th Avenue could be avoided by selecting the BNSF Alternative in the Hanford area. By selecting the BNSF Alternative at this location, there would be no Section 4(f) use of the property.

4.7.1.8 11029 Kent Avenue

As described in Section 4.6.2, the Hanford West Bypass 1 Alternative would result in a Section 4(f) use of 11029 Kent Avenue. The Hanford West Avoidance Alternative would result in the rail line being constructed approximately 100 feet northeast of this historic property.

The property at 11029 Kent Avenue qualifies for protection under Section 4(f) due to its association with early agricultural development in the area and as a local example of Folk Victorian architecture. While the Hanford West Avoidance Alternative would be placed outside of the property parcel boundary, it would require construction of a Kent Avenue roadway underpass structure adjacent to the north side of the property and may include construction of a retaining wall to separate the property from the underpass structure (see Figures 4-9 and 4-10). The alternative would also require the relocation of S. 11th Avenue to the northeast of the property, as well as the construction of radio communication site east of the property. The below-grade underpass structure would be immediately adjacent to the farmstead, and along with the rail line itself, would introduce visual features that would diminish the integrity of the property by altering the immediate surroundings. These project actions would cause an indirect adverse effect under Section 106. However, the property would still exist in its current location, and its association with early agricultural development in the area would still remain. The materials, design, and workmanship associated with Folk Victorian Architecture would remain intact. Therefore, the Hanford West Avoidance Alternative would not substantially impair the features that qualify this resource for protection under Section 4(f) and there would be no Section 4(f) use.

The property at 11029 Kent Avenue could also be avoided by selecting either the BNSF Alternative or the Hanford West Bypass 2 Alternative. There would be no Section 4(f) use to this property under the BNSF, Hanford West Bypass 2, or Hanford West Avoidance alternatives.

4.7.1.9 Friant-Kern Canal

The Friant-Kern Canal is a linear feature that would be crossed by the HST; components of the proposed HST would be placed within the historic property under the BNSF, the Bakersfield Hybrid, and the Bakersfield South alternative alignments. To avoid this use, it would be necessary to reroute the alternative alignments outside of Bakersfield. As outlined in Chapter 1.0 of this EIR/EIS, the purpose of the HST System is to provide a reliable high-speed train system that links the major metropolitan areas of the state. Therefore, rerouting alternatives outside of Bakersfield would not meet the purpose and need of the project. There is no feasible and prudent alternative to avoiding a Section 4(f) use of the Friant-Kern Canal.

4.7.1.10 2509 East California Avenue

As described in Section 4.6.2, the Bakersfield South Alternative would result in a Section 4(f) use of 2509 East California Avenue. Both the BNSF Alternative and the Bakersfield Hybrid Alternative are feasible and prudent avoidance alternatives to this Section 4(f) use.

4.8 Measures to Minimize Harm

Measures to minimize harm include measures that were taken during project planning to avoid or minimize impact as well as mitigation and enhancement measures to compensate for unavoidable project impacts. Table 4-5 lists the preliminary measures identified by the FRA and the Authority to minimize harm, as required by 49 U.S.C. Section 303(c)(2), which will be incorporated into the project to address the impacts of the alternative alignments. Additionally, avoidance alternatives have been developed to avoid uses to Section 4(f) properties where possible, as described in Section 4.7. For effects on historic properties, the Programmatic Agreement among the SHPO, ACHP, the Authority, and FRA outlines an approach for compliance with Section 106 of the NHPA. A Memorandum of Agreement (MOA) that is under development for the Fresno to Bakersfield Section will address the treatment of adverse effects on the built environment from the proposed HST alignment. The MOA will stipulate which treatment measures will be applied to which cultural resources and that the treatments will be described in the Built Environment Treatment Plan (BETP). The BETP will define the process by which these treatment measures will be applied to each identified resource. Proposed measures to minimize harm for all historic properties are listed together in Table 4-5, measures pertaining to each individual historic property are outlined in Chapter 3.17, Cultural and Paleontological Resources. As described, the project includes all possible planning to minimize harm to Section 4(f) properties resulting from use, as required by 49 U.S.C. Section 303(c)(2).

General measures that would minimize harm to all potentially affected properties as a result of noise or visual intrusion are listed in Section 3.4, Noise and Vibration, and Section 3.16, Aesthetics and Visual Resources. While these measures would apply to all discussed Section 4(f) resources, they are not repeated in Table 4-5.

Table 4-5
Measures to Minimize Harm

Impact(s)	Measures to Minimize Harm
Kern River Parkway and Mill Creek Linear Park (Jurisdiction: City of Bakersfield)	
Visual intrusion from overhead HST Temporary construction activities in the park	• To reduce potential incompatibility between the industrial character of generic guideways and columns and nearby downtown streetscapes, guideways and columns will incorporate graceful curved, thin, or tapered sculptural forms and decorative surface texturing. Parapets and other portions of elevated guideways will also include decorative texture treatments to reduce the utilitarian appearance of the large concrete surfaces through variety of texture, creation of shadow lines, and other articulation of surfaces to add visual and thematic interest. • Offsite landscape screening will be planted to provide new, intermittent screening of project structures. Occasional groupings of new trees in the parkway should be placed to break up views of long expanses of the guideway. Extensive tall tree planting would be made at or near the edge of the project right-of-way in the parkway. • To minimize high potential glare and contrast from specular reflection off of metallic OCS poles and other components, these poles and components will have nonreflective surfaces to minimize reflective glare. • The Authority and FRA would coordinate with the City of Bakersfield on alternative routes for bicycle or pedestrian paths that would be temporarily closed during construction of the HST guideway.
Allensworth State Historic Park (Jurisdiction: State of California Parks and Recreation and SHPO)	
Acquisition of land from park (BNSF Alternative only) Temporary construction activities in the park (BNSF Alternative only)	• Final design will continue to minimize right-of-way impacts in Allensworth State Historic Park. Acquisition of Allensworth State Historic Park land will be pursuant to California Code of Civil Procedure Section 1240 for the permanent use of 1.7 acres of Allensworth State Historic Park. • Mitigation may include providing financial compensation for purchase and development of replacement park property of at least equivalent value with the property acquired or, where appropriate, enhancement of the existing facility. Where applicable, this process will be consistent with Section 6(f) requirements (refer to Section 6.10 Section 6[f]), and provide park enhancement as appropriate.
Allensworth Ecological Reserve (Jurisdiction: State of California [CDFG])	
Acquisition of land from reserve (BNSF Alternative only)	• Passages have been designed through the trackway embankment in the vicinity of the Allensworth Ecological Reserve to allow wildlife movement across the HST right-of-way. Wildlife crossing would be provided in the railroad embankment at intervals of approximately 0.3 mile over the segment of the alignment from approximately Avenue 84 in Tulare County to the Elmo Highway in Kern County. • Mitigation may include providing financial compensation for purchase and development of replacement park property of at least equivalent value with the property acquired or, where appropriate, enhancement of the existing facility.

Table 4-5
Measures to Minimize Harm

Impact(s)	Measures to Minimize Harm
Historic Properties (Jurisdiction: SHPO)	
Property acquisition Potential vibration impacts Potential visual intrusion	• The HST project will develop construction methods to avoid indirect adverse effects to any historic properties from vibration caused by construction activities. Vibration from impact pile-driving during construction is anticipated to reach up to 0.12 in/sec ppv at 135 feet from the project centerline, a level that could cause the physical destruction, damage, or alteration of historic properties or historical resources if the pile-driving is within 80 to 140 feet of the building. Because impact pile-driving could cause adverse effects, alternative construction methods causing less than 0.12 in/sec ppv measured at the receptor will be developed for construction activities near historic properties or historical resources if they are determined to be susceptible to vibration damage at or above 0.12 in/sec ppv (Authority and FRA 2012e). The development of alternative construction methods at these locations would avoid indirect adverse vibration effects on historic properties. Implementation of avoidance measures will be monitored to ensure that damaging vibration levels are avoided during construction adjacent to the historic properties identified as requiring this treatment. The mitigation measure described above is consistent with FRA's High-Speed Ground Transportation Noise and Vibration Impact Assessment (2005) for evaluation of noise and vibration impacts associated with HSTs. The BETP will describe the methodology for the avoidance of adverse vibration effects and how such avoidance will be monitored and implemented during construction of the project. • The BETP identifies historic properties/historical resources that may require protection and/or stabilization before the start of construction of the project. Properties subject to this mitigation activity include those that would be physically affected by the project and properties in close-enough proximity to require protection to avoid effects. This treatment will allow the project to avoid adverse effects on historic properties/historical resources outright or will minimize those effects to the extent possible. This treatment will be developed in consultation with the landowner or land-owning agencies as well as the SHPO and the MOA signatories, as required by the PA. Such measures will include, but will not be limited to, vibration monitoring of construction in the vicinity of historic properties; cordoning off of resources from construction activities (e.g., traffic, equipment storage, personnel); shielding of resources from dust or debris; and stabilization of buildings adjacent to construction. • To avoid potential direct and indirect adverse effects that could be caused by construction of the heavy maintenance facility at the Fresno Works–Fresno HMF Site, the facility will be sited and constructed north of BNSF milepost 991.6. Construction north of BNSF milepost 991.6 will avoid potential direct adverse effects and direct substantial adverse changes that could be caused by construction of the facility on the two historic canals located south of that point. It is anticipated that the site selection for the Fresno facility north of BNSF milepost 991.6 will also avoid potential indirect adverse vibration effects and substantial adverse changes because the construction will be more than 135 feet (less than 90 VdB) from the historic canals. Application of this treatment would avoid effects on the historic properties. • The BETP identifies the historic properties/historical resources that will be subject to treatment to minimize the indirect adverse effects caused by the operational noise of the HST project. Properties subject to this mitigation will

Table 4-5
Measures to Minimize Harm

Impact(s)	Measures to Minimize Harm
	be treated in consultation with the landowner or land-owning agencies. Preliminary project design options, such as noise walls, have been developed to help reduce noise impacts and follow FRA methodologies for noise abatement. Application of this treatment would help minimize effects on historic properties (Section 106). • The BETP identifies specific historic properties/historical resources for nomination to the NRHP Program of the National Park Service (NPS). This mitigation treatment will be developed in consultation with the landowner or land-owning agencies. Current photographs of properties subject to this treatment for use in the nomination(s) will be taken before the start of project construction. The nomination document may also use other current and/or historic images prepared as part of other mitigation activities. This mitigation measure is consistent with best practices within the professional historic preservation community, and this measure is commensurate with treatment of historic properties in similar-scale transportation projects. Preparing and submitting NRHP nominations has proven to be effective in achieving the stewardship goals of Section 106. Performance tracking of this mitigation measure will be described in the BETP. • The BETP identifies specific historical resources that would be physically altered, damaged, or destroyed by the project that will be documented in compliance with the Historic American Building Survey (HABS), the Historic American Engineering Record (HAER), and the Historic American Landscape Survey (HALS) programs. The recordation undertaken by this treatment will focus on the aspect of integrity that would be affected by the project for each historic property subject to this treatment. For example, historic properties in an urban setting that would experience an adverse visual effect would be photographed to capture exterior and contextual views; interior spaces would not be subject to recordation if they would not be affected. Before the start of construction, in consultation with the NPS, Pacific West Region, California, large-format photographs will be taken of these historic properties / historical resources to show them in context and to show the details of their character-defining features. The photographs will be processed for archival permanence in accordance with HABS/HAER/HALS photographic specifications. Consultation with the SHPO, NPS, and the consulting parties will be conducted for the historic architectural resources to be documented to these standards. • The BETP will identify historic properties and historical resources that will be subject for historic interpretation. Interpretive exhibits will provide information regarding specific historic properties or historical resources and will address the aspect of the significance of the properties that would be affected by the project. Historic properties and historical resources subject to demolition by the project will be the subject of informative permanent metal plaques that will be installed at the site of the demolished historic property or at nearby public locations. Each plaque will provide a brief history of the subject property, its engineering/architectural features and characteristics, and the reasons for and the date of its demolition. The interpretive exhibits will utilize images, narrative history, drawings, or other material produced for the mitigation described above, including the HABS/HAER/HALS or other recordation and other archival sources. The interpretive exhibits may be in the form of, but are not limited to, interpretive

Table 4-5
Measures to Minimize Harm

Impact(s)	Measures to Minimize Harm
	display panels and/or printed material for dissemination to the public. The interpretive exhibits may be installed at local libraries, historical societies, or public buildings. This mitigation measure is consistent with best practices within the professional historic preservation community and is commensurate with the treatment of historic properties in similar-scale transportation projects. Preparing interpretive exhibits has proven to be effective in achieving the stewardship goals of Section 106. Performance tracking of this mitigation measure is described in the BETP and will be included in the MMRP. • The BETP provides that a plan for the repair of inadvertent damage to historic properties or historical resources be developed before project construction. The plan will consist of a general protocol for inadvertent damage to historic architectural resources and a listing of specific properties that should be the subject of an individual plan because of their immediate proximity to the project. Inadvertent damage from the project to any of the historic properties or historical resources near construction activities will be repaired in accordance with the SOI's Standards for Rehabilitation. The plan will utilize photographic documentation prepared for the other mitigation measures (such as the documentation associated with the HSR or the HABS/HAER/HALS records) as the baseline condition for assessing damage. The plan will include the protocols for notification, coordination, and reporting to the SHPO and the landowner or land-owning agencies. Before implementation of the plan, plans for any repairs to historic properties will be submitted for review and comment to the SHPO to verify conformance with the SOI's Standards for Rehabilitation. This mitigation measure is consistent with best practices within the professional historic preservation community and is commensurate with treatment of historic properties in similar-scale transportation projects. This type of mitigation measure has proven to be effective in achieving the stewardship goals of Section 106. Performance tracking of this treatment is described in the BETP.

Acronyms:
BETP = Built Environment Treatment Plan
CEQA = California Environmental Quality Act
FRA = Federal Rail Authority
HABS = Historic American Building Survey
HAER = Historic American Engineering Record
HMF = heavy-maintenance facility
HSR = historic structure report
HST = high-speed train
MOA = Memorandum of Agreement
NPS = National Park Service
NRHP = National Register of Historic Places
OCS = overhead contact system
OHP = (California) Office of Historic Preservation
PA = Programmatic Agreement
SHPO = State Historic Preservation Office(r)
SOI = Secretary of the Interior
VdB = vibration velocity level

4.9 Preliminary Section 4(f) Least Harm Analysis

Considering the foregoing discussion of the project's use of Section 4(f) properties and alternatives assessment, there may be no feasible and prudent avoidance alternative to the use of four Section 4(f) properties, regardless of which alternative is selected:

- Washington Irrigated Colony Historic Rural Landscape
  - Washington Colony Canal
  - North Branch of Oleander Canal
- Friant-Kern Canal

The Washington Irrigated Colony Historic Rural Landscape, which includes both the Washington Colony Canal and the North Branch of Oleander Canal, exists in areas where the BNSF Alternative is the only alternative being evaluated. Due to their linear nature perpendicular to the HST project, there are no feasible and prudent avoidance alternatives to the use of these properties, as described in Section 4.7.1.3.

When there is no feasible and prudent avoidance alternative (which avoids all Section 4[f] resources), FRA considers the following factors:

- Ability to mitigate adverse impacts on each Section 4(f) property (including any measures that result in benefits to the property).
- Relative severity of the remaining harm, after mitigation, to the protected activities, attributes, or features that qualify each Section 4(f) property for protection.
- Relative significance of each Section 4(f) property.
- Views of the official(s) with jurisdiction over each Section 4(f) property.
- Degree to which each alternative meets the purpose and need for the project.
- After reasonable mitigation, the magnitude of any adverse impacts on resources not protected by Section 4(f).
- Substantial differences in costs among the alternatives.

4.9.1 Preliminary Least Harm Analysis for Hanford Area Alternatives

The BNSF Alternative, Hanford West Bypass 1 and Hanford West Bypass 2 alternatives, and the Hanford West Avoidance Alternative would all result in uses of Section 4(f) properties regardless of which alternative were selected. Table 4-6 shows the properties that would incur a use under each alternative, and then provides a comparative assessment of these alternatives with regard to the least harm analysis factors.

Table 4-6
Preliminary Least Harm Analysis for BNSF Alternative and Hanford West Bypass Alternatives

Least Harm Factor	BNSF	Hanford West Bypass 1 (HW1)	Hanford West Bypass 2 (HW2)	Hanford West Avoidance Alternative (HWA)
Section 4(f) property(ies) incurring a use	Use of one Section 4(f) property: • People's Ditch: reroute ~1,000 ft of historic canal	Use of four Section 4(f) properties: • Last Chance Ditch: reroute ~ 1 mi of canal • 13148 Grangeville Blvd: demolition of structure • 9860 13th Ave: demolition of structure • 11029 Kent Ave: demolition of structure	Use of three Section 4(f) properties: • Last Chance Ditch: reroute ~1 mi of canal • 13148 Grangeville Blvd: demolition of structure • 9860 13th Ave: demolition of structure	Use of one Section 4(f) property: • Last Chance Ditch: reroute ~ 1 mi of canal
Factor 1: "The ability to mitigate adverse impacts on each Section 4(f) property (including any measures that result in benefits to the property)"	Canal impact would be mitigated in a similar manner under all alternatives; remaining canal segments would retain integrity.	Canal impact would be mitigated in a similar manner under all alternatives; remaining canal segments would retain integrity Mitigation for demolition of all three historic structures would occur in accordance with BETP.	Canal impact would be mitigated in a similar manner under all alternatives; remaining canal segments would retain integrity Mitigation for demolition of both historic structures would occur in accordance with BETP.	Canal impact would be mitigated in a similar manner under all alternatives; remaining canal segments would retain integrity.
Factor 2: "The relative severity of the remaining harm, after mitigation, to the protected activities, attributes, or features that qualify each Section 4(f) property for protection."	Remaining canal segments would retain integrity. Requires the least amount of canal rerouting. Does not result in a use of any additional historic structures.	Remaining canal segments would retain integrity. Mitigation would not reduce overall harm to the other three structures, as all three would be demolished.	Remaining canal segments would retain integrity. Mitigation would not reduce overall harm to the other two structures, as both would be demolished.	Remaining canal segments would retain integrity. Requires a greater rerouting of canal segments than the BNSF Alternative, and a similar level of rerouting as HW1 and HW2. Does not result in a use of any additional historic structures.

Table 4-6
Preliminary Least Harm Analysis for BNSF Alternative and Hanford West Bypass Alternatives

Least Harm Factor	BNSF	Hanford West Bypass 1 (HW1)	Hanford West Bypass 2 (HW2)	Hanford West Avoidance Alternative (HWA)
Factor 3: "The relative significance of each Section 4(f) property"	People's Ditch: this property is significant due to its being recommended eligible for inclusion on the NRHP for its association with the agricultural settlement pattern in the Mussel Slough region circa 1870s as a result of local pioneering canal systems and its association with the Mussel Slough Tragedy in 1880. The significance of this property is similar to that of Last Chance Ditch, which is also significant for its association with these same events.	Last Chance Ditch: this property is significant due to its being recommended eligible for inclusion on the NRHP for its association with the agricultural settlement pattern in the Mussel Slough region circa 1870s as a result of local pioneering canal systems and its association with the Mussel Slough Tragedy in 1880. The significance of this property is similar to that of People's Ditch, which is also significant for its association with these same events. 13148 Grangeville Blvd: this historic property is significant due to its being recommended eligible for inclusion on the NRHP as an important local example of Foursquare design with Colonial Revival stylistic elements; significant attached tank house illustrates important transitional construction method. 9860 13th Ave: this historic property is significant due to its being recommended eligible for inclusion on the NRHP for its association with settlement of the Mussel Slough area and as a significant local example of folk	Last Chance Ditch: same as HW1 13148 Grangeville Blvd: same as HW1 9860 13th Ave: same as HW1	Last Chance Ditch: same as HW1

Table 4-6
Preliminary Least Harm Analysis for BNSF Alternative and Hanford West Bypass Alternatives

Least Harm Factor	BNSF	Hanford West Bypass 1 (HW1)	Hanford West Bypass 2 (HW2)	Hanford West Avoidance Alternative (HWA)
		Queen Anne Architecture. 11029 Kent Ave: this historic property is significant due to its being recommended for inclusion on the NRHP as a local example of an intact early twentieth-century farm complex of Folk Victorian Queen Anne architecture.		
Factor 4: "The views of the official(s) with jurisdiction over each Section 4(f) property."	SHPO concurrence of eligibility and effect to canal pursuant to Section 106 of the NHPA is pending.	SHPO concurrence of eligibility and effect to canal and all three properties in accordance with Section 106 of the NHPA is pending.	SHPO concurrence of eligibility and effect to canal and both properties in accordance with Section 106 of the NHPA is pending.	SHPO concurrence of eligibility and effect to canal pursuant to Section 106 of the NHPA is pending.
Factor 5: "The degree to which each alternative meets the purpose and need for the project."	Meets the project purpose and need. Highest travel time (8 minutes and 17 seconds).	Meets the project purpose and need. Lower travel time than BNSF, higher than HW2 (8 minutes and 2 seconds).	Meets the project purpose and need. Lowest travel time (7 minutes and 43 seconds).	Meets the project purpose and need. A travel time for HWA has not been determined, but given its similarity to the alignment profile of HW1 and HW2, it is assumed to fall within the range of the travel time for those alternatives.

Table 4-6
Preliminary Least Harm Analysis for BNSF Alternative and Hanford West Bypass Alternatives

Least Harm Factor	BNSF	Hanford West Bypass 1 (HW1)	Hanford West Bypass 2 (HW2)	Hanford West Avoidance Alternative (HWA)
Factor 6: "After reasonable mitigation, the magnitude of any adverse impacts on resources not protected by Section 4(f)."[1]	• Greatest impact on agricultural land (1,075 acres) • Relocation or closure of one animal operation (dairy) • No impacts on wetlands • Least impact on sensitive habitat areas (2.66 acres) • Greatest number of residential relocations (62) • No impacts on community facilities • Least noise and vibration impacts (178 receivers)	• Similar impact on agricultural land as HW2 and HWA (848 acres) • Relocation or closure of one animal operation (dairy) • Least impact on wetlands (1.06 acres) • More impacts to sensitive habitat areas than BNSF, and less than HW2 and HWA (64.88 acres) • Commensurate number of residential relocations as HW2 and HWA (53) • No impacts on community facilities • Greater noise and vibration impacts than BNSF, less than HW2 (231-232 receivers)	• Similar impact on agricultural land as HW1 and HWA (808 acres) • No relocations or closures of animal operations • Greatest impact on wetlands (1.37 acres) • More impacts on sensitive habitat than BNSF, similar to HW1 and HWA (71.7 acres) • Commensurate number of residential relocations as HW1 and HWA (51) • No impacts on community facilities • Greater noise and vibration impacts than BNSF and HW1 (252-287 receivers)	• Similar impact on agricultural land similar as HW1 and HW2 (848 acres) • Relocation or closure of two animal operations (dairies) • Greater impact on wetlands than the BNSF, less than HW1 and HW2 (0.73 acres) • More impacts on sensitive habitat than BNSF, similar to HW1 and HW2 (64.74 acres) • Commensurate number of residential relocations as HW1 and HW2 (54) • No impacts on community facilities • Noise and vibration impacts not studied in detail; however, due to the similarity of HWA to HW1 and HW2, it is assumed that the number of affected receivers would be similar to those of the HW1 and HW2 and greater than those of the BNSF.

[1] A response to address the "magnitude of any impacts to resources not protected by Section 4(f)" ultimately requires a totality of impacts consideration that takes into account the entire spectrum of natural and human resources addressed in this EIR/EIS. This consideration is a task of the decision-makers examining the various technical reports contained in this EIR/EIS. Information by alternative is based on a summary review of the EIR/EIS. Because the Hanford West Avoidance Alternative was not studied in detail in this EIR/EIS, GIS data was reviewed for a hypothetical footprint extending 50 feet on either side of the potential centerline as this alternative.

Table 4-6
Preliminary Least Harm Analysis for BNSF Alternative and Hanford West Bypass Alternatives

Least Harm Factor	BNSF	Hanford West Bypass 1 (HW1)	Hanford West Bypass 2 (HW2)	Hanford West Avoidance Alternative (HWA)
Factor 7: "Substantial differences in costs among the alternatives."	If the BNSF Alternative is used through Corcoran (i.e., at-grade on west side of BNSF Railway tracks), HW1 must be used around Hanford. In this scenario, the BNSF is estimated at $23-73M more than HW1. If the Corcoran Bypass is used, HW2 must be used. In this case, the BNSF is estimated at $5-55M more than HW2.	$23-73M less than BNSF.	$5-55M less than BNSF.	Given that HWA is most similar to HW1 and HW2, it is assumed that the cost would be in a range less than the cost of the BNSF Alternative, i.e., $5-73M less than the BNSF Alternative.

Acronyms and Abbreviations:

Ave = Avenue
Blvd = Boulevard
BNSF = BNSF Alternative
HW1 = Hanford West Bypass 1
HW2 = Hanford West Bypass 2
HWA = Hanford West Avoidance Alternative
M = million
NHPA = National Historic Preservation Act
SHPO = State Historic Preservation Office(r)

Based on the least harm analysis contained in Table 4-6, the preliminary determination is that the Hanford West Bypass 1 and Hanford West Bypass 2 alternatives would likely have the greatest harm, when considering the seven comparative evaluation factors. Both of these alternatives affect canals with a similar level of significance; however, multiple additional historic structures are affected by these alternatives, which would otherwise be avoided by the BNSF Alternative and the Hanford West Avoidance Alternative.

The preliminary determination is that the BNSF Alternative and the Hanford West Avoidance Alternative result in a similar level of harm when considering the seven comparative evaluation factors. Each alternative requires rerouting of one canal; the canals have a similar historic association and level of significance, as described in Table 4-6 and in Section 4.5.2. While SHPO concurrence on the eligibility and significance of these canals is pending, due to their similar association it is assumed that the SHPO would concur that both of these canals have a similar level of importance. Both alternatives would meet the project purpose and need; although an exact travel time has not yet been developed for the Hanford West Avoidance Alternative, it is assumed to be 15 to 30 seconds less than the BNSF Alternative due to its similarity to the Hanford West 1 Bypass 1 and Hanford West Bypass 2 alternatives. Impacts on resources not protected by Section 4(f) vary depending upon the resource area, as shown in Table 4-6. The Hanford West Avoidance Alternative does not yet have a detailed cost established, but due to its similarity to the Hanford West Bypass 1 and Hanford West Bypass 2 alternatives, it is assumed that it would result in a lower cost than the BNSF Alternative.

FRA will take into account public comment on this Revised Draft EIR/Supplemental Draft EIS, and will coordinate with the SHPO on concurrence of eligibility of, and effect on, each Section 4(f) property. Additionally, FRA will make a final least harm determination and may refine the Hanford West Avoidance Alternative in the Final EIR/EIS.

4.9.2 Preliminary Least Harm Analysis for Bakersfield Area Alternatives

Implementation of the BNSF Alternative, the Bakersfield South Alternative, or the Bakersfield Hybrid Alternative would result in the use of the Friant-Kern Canal. If the Bakersfield South Alternative were to be implemented in locations where it parallels the BNSF Alternative and Bakersfield Hybrid Alternative, one additional Section 4(f) resource would incur a use: 2509 East California Avenue. Table 4-7 provides a comparative assessment between the BNSF Alternative, the Bakersfield South Alternative, and the Bakersfield Hybrid Alternative with regard to the least harm analysis factors.

Table 4-7
Preliminary Least-Harm Analysis for BNSF, Bakersfield South, and Bakersfield Hybrid Alternatives

Least Harm Factor	BNSF	Bakersfield South (BS)	Bakersfield Hybrid (BH)
Section 4(f) property(ies) incurring a use	Use of one Section 4(f) property: • Friant-Kern Canal (placement of project features in property boundary)	Use of two Section 4(f) properties: • Friant-Kern Canal (placement of project features in property boundary) • 2509 E. California Ave (demolition of structure)	Use of one Section 4(f) property: • Friant-Kern Canal (placement of project features in property boundary)
Factor 1: "The ability to mitigate adverse impacts on each Section 4(f) property (including any measures that result in benefits to the property)"	Canal impact would be mitigated in a similar manner under all alternatives; remaining canal segments would retain integrity.	Canal impact would be mitigated in a similar manner under all alternatives; remaining canal segments would retain integrity. Mitigation for demolition of historic structure would occur in accordance with BETP.	Canal impact would be mitigated in a similar manner under all alternatives; remaining canal segments would retain integrity.
Factor 2: "The relative severity of the remaining harm, after mitigation, to the protected activities, attributes, or features that qualify each Section 4(f) property for protection."	Remaining canal segments would retain integrity. Does not result in a use of any additional historic structures.	Remaining canal segments would retain integrity. Mitigation would not reduce overall harm to structure, it would be demolished.	Remaining canal segments would retain integrity. Does not result in a use of any additional historic structures.

Table 4-7
Preliminary Least-Harm Analysis for BNSF, Bakersfield South, and Bakersfield Hybrid Alternatives

Least Harm Factor	BNSF	Bakersfield South (BS)	Bakersfield Hybrid (BH)
Factor 3: The relative significance of each Section 4(f) property	Friant-Kern Canal: this historic property is significant due to the determination of eligibility for inclusion on the NRHP for its association with California's Central Valley project and facilitating expansion of agricultural communities in the Central Valley.	Friant-Kern Canal: same as BNSF 2509 E. California Ave: this historic property is significant due to the determination of eligibility for inclusion on the NRHP as an important local example of Folk Victorian architecture.	Friant-Kern Canal: same as BNSF
Factor 4: "The views of the official(s) with jurisdiction over each Section 4(f) property	SHPO has concurred with the eligibility of the canal. SHPO concurrence on the effect on the canal is pending.	SHPO has concurred with eligibility of both the canal and the structure. SHPO concurrence on the effect on these properties is pending.	Same as BNSF.
Factor 5: "The degree to which each alternative meets the purpose and need for the project."	Meets the project purpose and need. Total travel time of 3 minutes and 19 seconds in this segment.	Meets the project purpose and need. Total travel time of 3 minutes and 17 seconds in this segment.	Meets the project purpose and need. Longest travel time, at 4 minutes and 17 seconds in this segment.

Table 4-7
Preliminary Least-Harm Analysis for BNSF, Bakersfield South, and Bakersfield Hybrid Alternatives

Least Harm Factor	BNSF	Bakersfield South (BS)	Bakersfield Hybrid (BH)
Factor 6: "After reasonable mitigation, the magnitude of any adverse impacts on resources not protected by Section 4(f)." [2]	• No impacts on agricultural land or animal operations • Greatest impact on wetlands (0.76 acres) • Similar level of impact on sensitive habitat areas as BS and BH (52.3 acres). • Greater amount of residential relocations than BH, less than BS (265). • More impacts on community facilities than BH, less than BS (4). • Least noise and vibration impacts (14 receivers)	• No impacts on agricultural land or animal operations • Similar level of wetland impacts as BH, less than BNSF (0.56 acres). • Similar level of impact on sensitive habitat areas as BNSF and BH (51.53 acres). • Greatest amount of residential relocations (272). • Greatest impacts on community facilities (5). • Less noise and vibration impacts than BH, more than BNSF (64 receivers)	• No impacts on agricultural land or animal operations • Similar level of wetland impacts as BS, less than BNSF (0.56 acres). • Similar level of impact on sensitive habitat areas as BNSF and BS (51.42 acres) • Least amount of residential relocations (186). • Least impacts on community facilities (2). • Greatest noise and vibration impacts (95 receivers)
Factor 7: "Substantial differences in costs among the alternatives."	$1,409,000,000	$4M more than BNSF.	$6M more than BNSF.

Acronyms and Abbreviations:

Ave = Avenue
BH = Bakersfield Hybrid
BNSF = BNSF Alternative
BS = Bakersfield South
NRHP = National Register of Historic Places

[2] A response to address the "magnitude of any impacts to resources not protected by Section 4(f)" ultimately requires a totality of impacts consideration that takes into account the entire spectrum of natural and human resources addressed in this EIR/EIS. This consideration is a task of the decision-makers examining the various technical reports contained in this EIR/EIS.

Based on the least harm analysis contained in Table 4-7, the preliminary determination is that the Bakersfield South Alternative would likely have the greatest harm when considering the seven comparative evaluation factors. All three alternatives affect the same canal; however, the Bakersfield South Alternative would directly affect an additional Section 4(f) historic structure that would be avoided by the BNSF and the Bakersfield Hybrid alternatives.

The preliminary determination is that the BNSF and the Bakersfield Hybrid alternatives result in a similar level of harm when considering the seven comparative evaluation factors. Both alternatives result in the same impact to the Friant-Kern Canal. Both alternatives would meet the project purpose and need; however, the Bakersfield Hybrid does require an additional travel time of approximately 1 minute. Impacts on resources not protected by Section 4(f) vary depending upon the resource area, as shown in Table 4-6. The BNSF Alternative has a slightly lower cost than the Bakersfield Hybrid Alternative.

FRA will take into account public comment on this Revised Draft EIR/Supplemental Draft EIS, will coordinate with the SHPO on the determination of effect to the canal under each alternative, and will make a final least harm determination in the Final EIR/EIS.

4.10 Section 6(f)

The purpose of the LWCF Act is to assist in preserving, developing, and ensuring accessibility to outdoor recreation resources and as to strengthen the health and vitality of the citizens of the United States by providing funds, planning, acquisition, and development of facilities. Recreation facilities awarded such funds are subject to the provisions of this Act. The LWCF's most important tool for ensuring long-term stewardship is its "conversion protection" requirement. Section 6(f)(3) strongly discourages conversions of state and local park and recreation facilities to other uses.

Section 6(f)(3) of the LWCF Act requires that no property acquired or developed with LWCF assistance will be converted to other than public outdoor recreation uses without the approval of the Secretary of the Department of the Interior (NPS is a service of the Department of the Interior), and only if the Secretary finds it to be in accord with the then Statewide Comprehensive Outdoor Recreation Plan (SCORP), and only upon such conditions as the Secretary deems necessary to ensure the substitution of other recreation properties of at least equal fair market value and of reasonably equivalent usefulness and location (36 CFR Part 59).

Prerequisites for conversion approval as provided in 36 CFR § 59.3 are as follows:

- All practical alternatives to the proposed conversion have been evaluated.
- The fair market value of the property to be converted has been established, and the property proposed for substitution is of at least equal fair market value as established by an approved appraisal.
- The property proposed for replacement is of reasonably equivalent usefulness and location as that being converted.
- The property proposed for substitution meets the eligibility requirements for LWCF-assisted acquisition.
- In the case of assisted sites that are partially rather than wholly converted, the impact of the converted portion on the remainder will be considered. If such a conversion is approved, the unconverted area must remain recreationally viable or must also be replaced.
- All necessary coordination with other federal agencies has been satisfactorily accomplished.

- The guidelines for environmental evaluation have been satisfactorily completed and considered by the NPS during its review of the proposed Section 6(f)(3) action. In cases where the proposed conversion arises from another federal action, final review of the proposal will not occur until the NPS regional office is assured that all environmental review requirements related to the other action have been met.

- State intergovernmental clearinghouse review procedures have been adhered to if the proposed conversion and substitution constitute significant changes to the original LWCF project.

- The proposed conversion and substitution are in accord with the SCORP and/or equivalent recreation plans.

Section 6(f) conversion requires additional coordination with the agency of jurisdiction and California State Parks, which oversees the LWCF program for the NPS, and the NPS regarding the project effects and conversion area and replacement property.

The Colonel Allensworth State Historic Park/Allensworth Historic District was established by the California Department of Parks and Recreation in 1974 for the preservation, development, and interpretation of resources of the historical community of Allensworth. Because funds from a 1994 LWCF development grant to the California Department of Parks and Recreation were used for new recreational facilities at the site, the park is considered a Section 6(f) property (National Park Service 2010).

4.10.1.1 Converted area: description

No Project Alternative

Although this alternative would have no impact on Colonel Allensworth State Historic Park, it would not address the state's need for an intercity transportation system, including the need in the southern San Joaquin Valley. This alternative is insufficient to meet existing and future travel demand; current and projected future congestion of the transportation system will continue to result in deteriorating air quality, reduced reliability, and increased travel times. Because it does not meet the project purpose and need, the No Project Alternative is not feasible.

BNSF Alternative

As previously described and shown on Figure 4-7, construction and operation of the BNSF Alternative would require the conversion of approximately 1.7 acres of Colonel Allensworth State Historic Park. This area represents less than 1% of the 240-acre park. An area of 1.7 acres east of Road 84, which are currently vacant public lands, would be converted to alignment right-of-way uses.

The remaining park area includes a visitor center, picnic area, tent and RV camping areas, several homes (including the Allensworth home), stores, a bakery, a blacksmith area, a drugstore, barber shop, post office, library, hotel, schoolhouse, a Baptist Church, restaurant, various farm buildings, and several other buildings that have been reconstructed to reflect the 1908 to 1918 historical period.

In addition to direct impacts on the converted areas of the park, indirect impacts on the unconverted areas of the park could also result from the BNSF Alternative, where such areas would not remain recreationally viable. As described in Section 3.4, Noise and Vibration, the BNSF Alternative would be located as close as 150 feet from existing park facilities and would result in increases in noise and vibration in the park. With implementation of mitigation measures, potential operational noise and vibration impacts would be reduced to less-than-

significant levels. Although construction vibration impacts on the park would remain significant and unavoidable, even with mitigation, these impacts would be short-term and would not affect the recreational viability of the park.

As described in Section 3.16, Aesthetics and Visual Resources, the visual setting of the park would be altered by the BNSF Alternative because construction and operation of the HST would introduce an industrial transportation element to the park's agricultural valley landscape. The HST would intrude on the existing park experience, undermine the integrity of the visual setting, and thereby reduce the recreational viability of the park until the HST landscape screening has grown to maturity.

Both lands that are directly impacted and those that are indirectly impacted would be required to be replaced. If the BNSF Alternative is implemented, a replacement property would be provided that would meet the requirements for a reasonably equivalent usefulness and location. In addition, the replacement property would be of at least equivalent fair market value. The NPS prerequisites for conversion approval state that all necessary coordination with other federal agencies must be satisfactorily accomplished. In addition, in cases where the proposed conversion arises from another federal action, final review of the proposal will not occur until the NPS regional office is assured that all environmental review requirements related to that other action have been met. This process is under way in conjunction with FRA through the EIR/EIS process.

Allensworth Bypass Alternative

The Allensworth Bypass Alternative is a feasible and prudent alternative to avoiding impacts on Section 6(f) resources. The Allensworth Bypass Alternative would be located outside of the park boundaries and would not result in conversion of parkland.

4.10.1.2 Section 6(f) Summary

Colonel Allensworth State Historic Park is the only Section 6(f) property located within the study area, and a conversion of portions of the park would only occur under the BNSF Alternative. Due to the impacts related to Section 4(f) and Section 6(f), and the fact that a feasible and prudent avoidance alternative exists for Colonel Allensworth State Historic Park, implementation of the BNSF Alternative is not anticipated at this location. However, if the BNSF Alternative is selected, because of the timing of the project, environmental evaluation, and the need to demonstrate completion of environmental review requirements, the Authority and FRA would provide additional environmental evaluation for the Section 6(f) conversion consistent with NPS NEPA requirements, including a 30-day public comment period after publishing a Draft EIR/EIS assessing impacts of the conversion. The FRA could issue its NEPA determination and Record of Decision on this EIR/EIS before the NPS determination specific to Section 6(f) conversion. The NPS evaluation would be coordinated with the NPS and will meet the remaining prerequisites for conversion approval, including establishing the fair market value of the property to be converted and the property proposed for substitution, which would be of at least equal fair market value as established by an approved appraisal. In addition, subsequent environmental evaluation of the conversion will include analysis of the impacts of conversion for the replacement property, once the property has been identified.

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